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TEMATSKI ZBORNIK RADOVA MEĐUNARODNOG ZNAČAJA

INTERNATIONAL SCIENTIFIC CONFERENCE “ARCHIBALD REISS DAYS”
THEMATIC CONFERENCE PROCEEDINGS
OF INTERNATIONAL SIGNIFICANCE

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„DANI ARČIBALDA RAJSA“

“ARCHIBALD REISS DAYS”

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PREFACE

Dear readers,

In front of you is the Thematic Proceedings of the International Scientific Conference "Archibald Reiss Days 2013", which was organized by the Academy of Criminalistic and Police Studies, with the support of the Ministry of Interior and the Ministry of Education, Science and Technological Development of the Republic of Serbia, and held at the Academy of Criminalistic and Police Studies.

The International Scientific Conference "Archibald Reiss Days", is held for the third time in a row, in memory of one of the founders and directors of the first modern police high school in Serbia, Dr. Rodolphe Archibald Reiss, after whom the Conference was named.

The Thematic Conference Proceedings contains 138 papers written by eminent scholars in the field of law, security, criminalistics, police studies, forensics, medicine, as well as members of national security system participating in education of the police, army and other security services from Russia, Ukraine, Belarus, China, Poland, Slovakia, Czech Republic, Hungary, Slovenia, Bosnia and Herzegovina, Montenegro, Republic of Srpska and Serbia. Each paper has been reviewed by two competent international reviewers, and the Thematic Conference Proceedings in whole has been reviewed by five international reviewers.

The papers published in the Thematic Conference Proceedings contain the overview of contemporary trends in the development of police educational system, development of the police and contemporary security, criminalistics and forensics, as well as with the analysis of the rule of law activities in crime suppression, situation and trends in the above-mentioned fields, and suggestions on how to systematically deal with these issues. The Thematic Conference Proceedings represents a significant contribution to the existing fund of scientific and expert knowledge in the field of criminalistic, security, penal and legal theory and practice. Publication of this Conference Proceedings contributes to improving of mutual cooperation between educational, scientific and expert institutions at national, regional and international level.

Finally, we wish to extend our gratitude to all authors and participants at the Conference, as well as to reviewers of the Proceedings, Mr Vladimir Tretyakov, PhD, Mr Mykhail Cymbalyuk, PhD, Mr Wang Shiquan, PhD, Mrs Snežana Nikodinovska-Stefanovska, PhD and Mr Vid Jakulin, LL.D. We also wish to thank the Ministry of Interior of the Republic of Serbia on its support in organization and realization of the Conference, as well as the Ministry of Education, Science and Technological Development of the Republic of Serbia, for its financial support in publishing of the Thematic Conference Proceedings

We sincerely hope that the "Archibald Reiss Days 2013" will become a traditional, internationally renowned scientific conference.

Belgrade, March 2013

Programme and Organizing Committees

CONCLUSIONS AND RECOMMENDATIONS

During the third International Scientific Conference "Archibald Reiss Days 2013", there was a meaningful and fruitful discussion within the topics, current problems were analyzed, solutions de lege ferenda *were proposed, and new developments in various scientific fields were presented. The key recommendations and conclusions of the presented papers, grouped by topics, are as follows:*

1. Management in Public Administration

- The economic and financial crisis affecting the modern world renewed the dilemma about the role of government and administrative system; there is a need to establish a rational, responsible and efficient government that would allow foreign investment and ensure the proper and effective exercise of the rights and interests of citizens and other subjects. In line with the changing environment, it is necessary to change *modus operandi*, modernize procedures and processes and ensure admission of highly skilled personnel.
- Many countries have adopted public administration reform strategies and action plans for the management of the new changes; although most of the countries adopted reform strategies, special problem is the implementation of the strategic framework. The Action Plan needs to provide the liability of competent authorities for undertaking certain measures and to establish a time frame for their implementation.
- New approach to reform of the state and public administration must be in accordance with the economic and financial situation. It is necessary to strengthen the capacities in terms of development and institutional capacity building, to be able to efficiently and effectively implement the European Union policy. Bodies and organizations of state and public administration have a special role in the fight against corruption and organized crime.
- The implementation of the methods of functional analysis to identify the tasks that need to be performed and streamlining of administration are necessary.
- It is necessary to establish effective cooperation between national administrative systems, since due to the strong European convergence, the differences between administrative systems have been overcamed. By adopting common standards, Member States modify and enhance their systems under a strong influence of European coherence. Cooperation between countries through the exchange of best practices and experiences and comparison of successful methods, affects the overall improvement of functioning of administrative bodies (including judicial and other authorities).
- New solutions in the field of human resources management, providing a strong position and role of the central body for human resource management and the implementation of permanent process of professional development of civil and public servants are required. The general professional training of civil servants must be tailored for police officers, given the specific tasks they perform.
- The adoption and application of modern management principles are required, and special responsibility for their introduction and effective implementation belongs to managers in bodies. They must be professionally trained in terms of new methods of performing work and tasks.
- It is necessary to set out efficient system of protection of civil servants' rights (in proceedings before administrative bodies and competent courts).
- Provision of the rule of law and the legal security of citizens and other subjects, the adoption of necessary regulations and changes to the existing ones, as well as establishment of mechanisms for their effective implementation are necesary. Acceptance of regulations by the citizens, and their compliance with them, raising awareness about the new and accountable public administration, raising the level of professionalism and competence of the employees, which affects the quality of work of administration in whole, are reqired.

2. Current Problems of Structuring and Functioning of Police Organization

- Problems were analyzed, and solutions related to contradictions of police organization, past, present and future of police organization, which attract significant attention of professional, civil and general public, were proposed.
- Contradictions in police organization represent professional challenges for all police officers, whether they are executives or managers.
- Sinergy that the police organization should enable is a prerequisite of optimal connection of process (managing, for example control, etc.), branch (executive, for example. traffic safety, etc.), and auxiliary (analytics, link and cryptographic, computer support, etc.) functions of the police organization, and its structuring.
- If optimal organization is not followed by the proper organizational culture and generally acceptable organizational behavior of police officers, police organizations will not be able to meet the needs of the state and society.
- The problems and proposed solutions in the field of policing and professionalism of the police, standardization of policing, regular, emergency, specific and special police tasks, were analyzed.
- It was pointed to the need for optimization of policing using modern decision theory, based on the application of quantitative methods and information technology in order to support decision making, team method and work, systematic way of thinking about the police issues etc.

3. Contemporary Concepts in Criminalistics

- It is necessary to improve criminalistic practice in accordance with the possibilities of modern scientific and technological achievements.
- It is necessary to define models of information and continuous training of police officers and magistrates regarding the possibility and necessity of the application of modern scientific and technical achievements in the procedures of prevention, detection and solving criminal offences, locating and arresting perpetrators and providing evidence.
- It is necessary to define the procedures of police officers during the implementation of specific measures to prevent and combat crime (especially regarding the use of methods based on the achievements of science and technology).
- Continuous evaluation of working methods and the legal framework of criminal police conduct in the prevention, detection, clarification and proving of committed criminal offences is necessary.
- The improvement of the existing and finding new scientific methods for more efficient prevention and combat agains crime are required.
- It is necessary to review the basic elements of job profile of a criminalist, and continously work on developing police integrity and improving the level of professionalization of criminal police.
- It is very important to develop programs of specialization of police officers of criminal police in line with current trends and the basic characteristics of crime (defining the pyramid of education in line with the organizational model of the police).
- Continuous analysis/evaluation of models of police organization is necessary, in order to increase efficiency.
- The development and implementation of criminalistic strategic approach to the prevention and combating crime is required.
- It is crucial to improve systematic approach to preventing and combating crime, organization and coordination of various state bodies in preventing and combating crime.

4. Crime and Penal and Legal Reaction

- Organized crime, crime of violence, human trafficking, corruption, cyber crime, are modern, often very serious forms of crime, whose expansion is characteristic not only for our country and the countries in the region. Fighting these forms of crime requires engagement of many subjects in various fields, ranging from establishing criminal policy, creating legislative and institutional framework for the criminal justice action, especially preventive mechanisms in this area, through the application of modern methods of detection and prevention of these types of crime to further development and expansion of institutions of international police cooperation.
- The Law on Amendments to the Criminal Code of Serbia of December 2012 harmonized the substantive criminal legislation with European standards, particularly when it comes to crimes related to corruption, terrorism, as well as some issues of general criminal law, in particular those related to sentencing. However, a lot of issues remain unsolved by these amendements, which require a certain audit, so it seems necessary to continue the already initiated reform of criminal legislation.
- Some forms of modern crime (economic crime, organized crime, corruption, money laundering, etc.) and their expansion imposed the necessity of introducing criminal liability of legal persons in our legal system, which was done by passing the Law on the Liability of Legal Entities for Criminal Offenses . However, although it has been a while since it was passed, the results of its practical application can be assessed as unsatisfactory.
- Although the Criminal Code of Serbia of 2005 and its subsequent amendments significantly altered the system of criminal sanctions, the use of the so-called alternative sanctions in our country has not produced satisfactory results. Reasons should be sought in the inadequate system of institutions responsible for monitoring and enforcement of these sanctions, the conservatism of judges, and the negative attitude of public opinion towards their implementation.
- Despite great efforts in finding new, alternative sanctions, imprisonment sentence remains the most important and the most serious sentence in majority of modern countries. Its full effects can be achieved with its appropriately weighted prescribing and imposing, as well as its carefully implemented execution, since only in that way it can, in addition to repressive, have a preventive character.
- Protection of children from various forms of abuse and harassment gains a growing importance at the international and national level. Our country is also making significant efforts in that direction, by improving the legislative solutions in this area and strengthening institutions dealing with the protection of children and their rights. One of these certainly is the institution of the school police officer.

5. Forensic Methods in Criminalistic Identification

- Within the analysis of the current state of forensic laboratories in connection with the acceptance of material evidence by the court, it was pointed to the importance of certification of forensic laboratories and the overview of the current situation in the region.
- In the field of forensic accounting, the need for economic and financial expertise in the process of proving criminal cases of economic crime has been emphasized, given the fact that the current legal solutions fail to solve many dilemmas.
- Within the forensic chemistry, it was pointed to the importance of using chromatographic methods of analysis in forensic identifications. A brief overview of the thin-layer, liquid and gas chromatography, which can be used to identify explosives, drugs and other substances, was presented.
- Within forensic genetics, the results of research were presented, which, with the application of genetic statistical analysis, showed a high degree of homogeneity of the studied sequences and scientifically based justification for the formation of a STR reference database for the entire territory of Belarus.

- Within dactyloscopy, the possibility of using directional filtering techniques (Log-Gabor) to improve the quality of the fingerprint images, as a result of extensive researches by the authors, was presented.
- Since in recent years the use of biometric facial identification has increased, the results of the research of strengths and weaknesses of these forensic methods in terms of reliability were presented at the Conference. In fact, it was concluded that the technology used for biometric identification is accurate when it comes to verification, but not always when it comes to identification. The problem arises when a person has a different make-up, glasses, or a different hairstyle when it comes to spotting the differences and in cases of identification of twins.
- In the field of forensic examination of documents, the paper that has pointed out the advantages and disadvantages of the old and new ways of protection of euro banknotes from forgering, was presented.
- Multidisciplinary papers, for example, in the field of forensic medicine and forensic entomology, which stressed the importance of cooperation between different subjects to determine the time of death based on the life stages of insects found on the body of the victim, were also presented at the Conference. The paper presented the results of the research, which proved the claim that in determining the time of death of a victim of a crime (e.g., murder), methods of forensic entomology are more reliable 72 hours after death.
- Also, among multidisciplinary papers, the paper that highlights the importance of cooperation between forensic engineer and jurist that studies the connection between the explosion effects on the environment and different possibilities for qualification of crimes committed with them, given that different masses of used brisant explosives indicate different intentions of the perpetrator, was presented. This paper presents a statistical analysis of cases of explosive devices activations on the territory of the City of Belgrade Police Administration. The results of the research show the relevance of the type and mass of used explosive for the occurrence of the consequences in the form of property damage, injury and death of people, and the importance of other factors such as location, time, manner of placing and activating an explosive device.
- It was also pointed to the possibility of application of thermal imaging techniques in forensics – in biometric identification, forensic processing of fire sites and explosions.
- By presenting a number of new and current forensic methods related to the identification of persons and unknown substances, the conclusion of the necessity of innovation, development and great potentials of application of forensic methods, especially in criminalistics, imosed itself. During the Conference, it could be concluded that the interests of all authors were focused on modern methods of identification. Depending on financial resources, some authors have presented results unattainable for the other participants in the Conference. Precisely this ability, to perceive and understand these researches, with discussion and clarification of the authors, directly provides the possibility of expanding scientific knowledge. The purpose of this kind of scientific conference, in terms of meeting people and future professional and personal inter-institutional cooperation, has been fully satisfied.

6. Contemporary Security Studies and Security of the Republic of Serbia

- *Contemporary security studies* have become extremely current area of research in the social sciences in our country, the region and the world.
- The authors of papers made a special contribution to areas such as: critical review of the development of security studies in the world; expanding the security study field and development of theoretical concepts of safety - from individual, societal and national, to regional and international security; sectoral approach to the study of current security issues, with an emphasis on environmental, economic and energy security; safety in emergency situations, security and crisis management.
- All papers reflect meticulous research methodology according to required rules, which were implemented on the basis of a comprehensive analysis of the rich research and scientifically relevant material; hence the results presented in papers are clear, critical, and provide a good basis for further scientific development of contemporary security studies.

- The quantity of scientific work in the field of security indicates the necessity of a formal institutionalization of scientific field of security studies, by normative introduction in the national nomenclature of sciences. Within the security scientific field, more specific scientific fields, particularly the field of national security, international security, security in emergencies would be developed, which would lead to a change in the national nomenclature of educational profiles. Many new jobs in the area of security, which require amendment to the national nomenclature of job profiles, emphasize this fact.
- In addition, the practice of organizing scientific conferences that are fully or prtially devoted to solving contemporary problems of security, such as "Archibald Reiss Days", should be continued. This is an excellent opportunity to promote the results of numerous research projects of multidisciplinary, and, as a rule, of security nature, such as those implemented by the Academy of Criminalistic and Police Studies.

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INTRODUCTORY PAPERS

UDC: 159.925.6
343.982.4
003.51

THE STUDY ON THE CHARACTERISTICS OF HANDWRITINGS ON DIFFERENT PADS

Associate Professor **Yanling Wang**, MA
Forensic Science Department, National Police University of China, Shenyang, China

Abstract: Currently, there are more and more cases involved in handwriting examination of pad changes in the field of handwriting examination, M.O. diversity also makes the test more difficult. However, at present, the research of pad influencing handwriting in the field of inspection of documents is comparatively general in country. Thus, researching the influence of the characteristic of handwriting by different pads is adapted to the need of new time.

This thesis demonstrates the process of sample collections, using observation method and measurement to make the statistics of the macro characteristics of handwriting and the micro trace of handwriting stroke traces. It also discusses the relevant factors influencing handwriting changes deeply to find out that handwriting changes have intimate connection with paper, tools and surface of pad and so on. Lastly, it applies the result of research to the practice of handwriting examination and discusses the stable characteristic and inconstant characteristic which should pay attention to when using handwriting character in handwriting examination.

Keywords: pad-changed, handwriting characteristics, handwriting.

INTRODUCTION

Typically, people use the smooth and steady desktop for pad .When changing into other maladaptive pads, writers cannot adapt to the new writing conditions, particularly, different kinds of pad material properties are different, often causes the strength , angle, the whole coordination and flexibility of writing movement changes, so that the formation of the handwriting changes .This test has selected 20 22-year-old students to use pen and ball pen, on the palm , thigh, quilts, bag, windowsill, book, desk of seven different pads Chinese handwriting as experiment samples, observing, making statistics, and studying the different effect of pad on handwriting characteristics .According to the pad, the Chinese characters of experimental samples were divided into seven groups .Take the handwriting of the person writing on the book for pad as a standard, then compared with the other six groups Chinese handwriting with different pad for writing.

THE CHARACTERISTICS OF HANDWRITINGS ON DIFFERENT PADS

Book pad handwriting

If to the surface for writing is smooth, soft hard moderate, as the pad, it is closer to the normal writer's general writing conditions .The whole writing is natural and fluent. The layout of words is compact and reasonable.

Smooth strokes (Fig1), with no significant jitter, and pressure characteristics is fully reflected. The pen ink of the starting point and finishing point of strokes are heavy (Fig2), distribution of strokes in moderate, the personal writing characteristic is fully exposed.

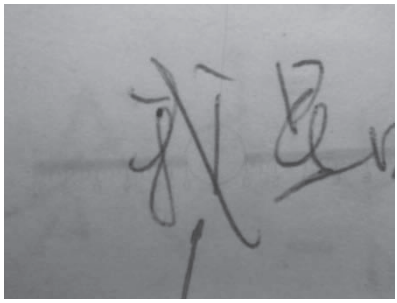

Fig 1: Smooth strokes

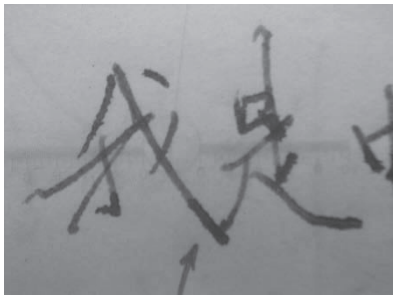

Fig 2: Heavy pen ink of the finishing point of strokes

The dispersion phenomenon of pen is serious, the stroke traces thick, the characteristic of inked lines are obvious. (Fig 3 & Fig 4)

Fig 3: Serious dispersion phenomenon of pen

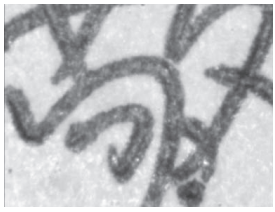

Fig 4: Obvious inked line

Palm pad anomalous characteristics of handwriting for emergence rate

With the palm pad for writing, word lines tilted irregularly (Fig 5), word combinations between the front are heterogeneous. The level and the proficiency of writing generally decreased.

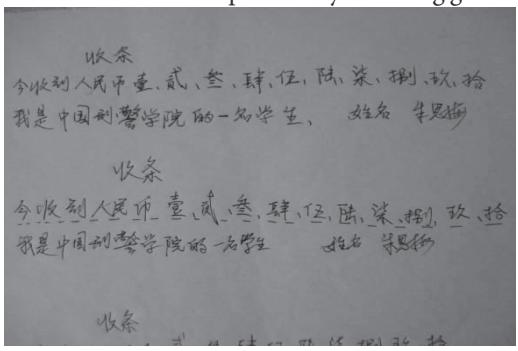

Fig 5: Word lines tilted irregularly.

Strokes are tilted (Fig 6), turning in a circular arc shape, some long strokes turn into small dots.

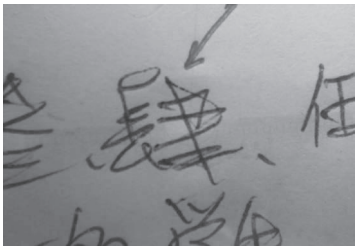

Fig 6: Horizontal and vertical strokes are not straight

Individual strokes appear weightless, broken trace (Fig 7& Fig 8), modification or retracing. Especially the signature pen, strokes edge appears the characteristic of irregular or rough.

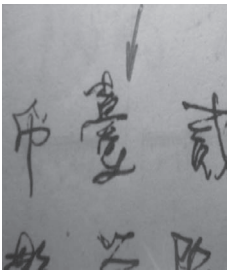

Fig 7: Continuous strokes increase

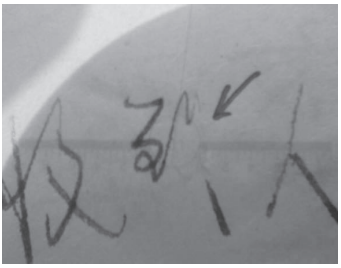

Fig 8: Broken traces of strokes

The writing is jittered (Fig 9).In the writing of first few words, writers cannot adapt to the new writing conditions, the writing jitters significantly. But with the increase of writing, the writer slowly adapted to the change of pad, the jittering phenomenon is reduced. The punctuation as forced perspective change in morphological changes (Fig10), some comma is elongated.

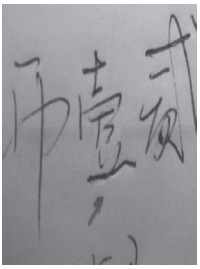

Fig 9: Jerky jitter

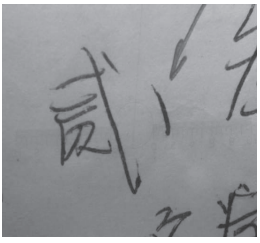

Fig 10: Deformation of Punctuation

Thigh pad handwriting

The strength of writing is not stable, the ink is used unevenly. The pen ink of the starting point and finishing point of strokes and turning strokes are heavy, while the ink of some straight strokes are light, or even appears weightless or broken stroke trace (Fig 11).

Strokes jitter, bend or are out of shapes, starting strokes, finishing strokes, ticking strokes and other detail characteristic changed. When someone writes on the uneven or irregular pad, the writing movement suffers changeable resistance, the pen point on a writing surface moves up and down in handwriting, jittering or bending strokes, intermittent (Fig12), short and long stroke or improper strokes appeared.

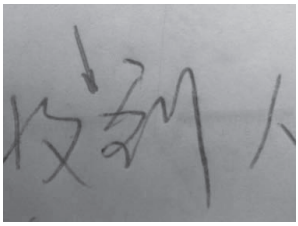

Fig 11: Broken stroke traces

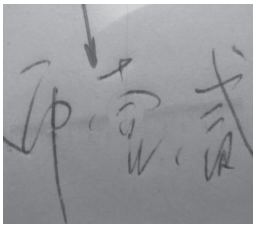

Fig 12: Strokes Intermittent

Found by measuring, take the human body as the pad in writing, the palm pad handwriting stroke traces are rough; the thigh pad handwriting stroke traces are thin.

Broken-paper phenomenon: Writing on the soft leg, the reverse of the paper has deep indentation, paper cannot completely fit with the surface of pad, with negligence, the paper punctured easily.

Quilt pad handwriting

When writing on the quilt for writing pad, the stroke trace of pen is the thickest trace, the stroke trace of ball-pen is the thinnest trace.

Writing level decreased obviously .The overall writing looks weightless, the strokes are not concreted. The surface of quilt is rough, belongs to a flexible carrier .The anaphoric relations between strokes are obvious, continuous strokes increase (Fig13), strokes lengthened and deformed. When writing on the quilt for writing pad, the quilt surface is concaved under the writing pressure, when finish writing a stroke and begins to write another, the pen point is likely to contact with paper, the continuous strokes increase.

It appears broken stroke trace, weightless stroke and modification or retracing on strokes. The strokes are thick, and the pen ink of the starting point and finishing point of strokes are heavy, particularly when writing with pen, the dispersion phenomenon of pen is serious, the stroke traces thick, the characteristic of inked lines are obvious (Fig14).

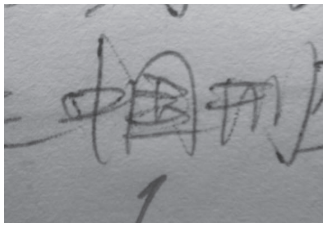

Fig13: Continuous strokes increase

Fig14: Obvious inked lines

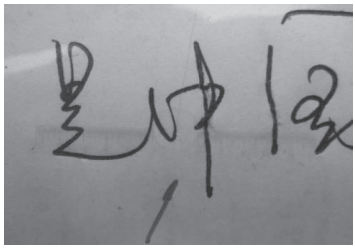

Fig15: Jerky jitter

When writing on the quilt for pad, efforts to grasp are not moderate; papers are often in the process of writing (Fig16).

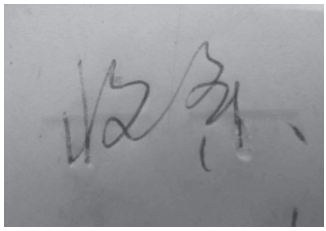

Fig16: The paper is pricked

Bag pad handwriting

Writing level decreased. The surface of bag is rough with obvious pattern line, moderate hardness. The writer in writing pay high attention to writing activities, resulting in reduced levels of writing. But the stroke is concreted, not weightless or unconscious. It appears jerky brush strokes, jittering evenly (Fig17).The process of writing appears weightless strokes and broken stroke traces (Fig18).

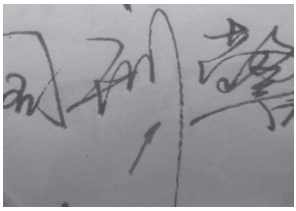

Fig 17: Even jitter

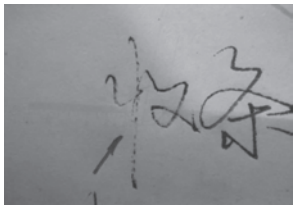

Fig 18: Weightless strokes

Other phenomena: Viewing the back of paper, writing material permeates through the paper, but the paper will not be damaged generally .The paper is neat; bending phenomena do not appear in the writing process.

Windowsill pad handwriting

When writing on the windowsill for writing pad, the stroke trace of pen is the thickest trace, the stroke trace of ball-pen is the thinnest trace.

Writing proficiency and the writing level are reduced. The windowsill made by terrazzo, with hard and smooth surface. Writing on such hard solid pad, strokes look weightless. The writing has jerky jitter (Fig 19), this phenomenon appears in the large stroke. Writing with a signature pen or a ball-point pen, such characteristics are more obvious.

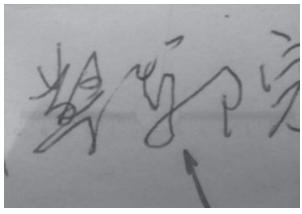

Fig 19: Jerky jitter

Large strokes prone to reflect the sliding stroke phenomenon. Because the surface of a windowsill is smooth, when writing on a single sheet of paper, sliding stroke phenomenon sometimes results from the writing direction, some obviously exaggerated strokes appear (Fig20).

Strokes have omissions. When writing on a smooth and hard windowsill, the friction force between pen point and the supporter is changeable. It is not easy for the writer to control the pen when complex strokes appear, circling motion becomes simplified (Fig21).

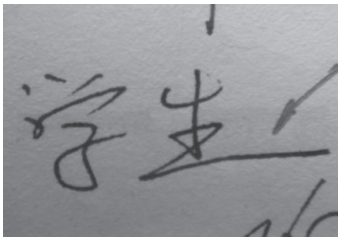

Fig 20: Sliding strokes

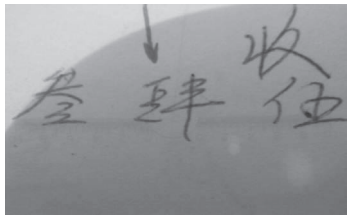

Fig 21: Omission of strokes

The strokes are thin; especially obvious in ball-point pen writing, white lines characteristics is obvious through the amplification observation (Fig22).

Brush strokes movements are not coordinated, the strokes are stiff, turning strokes are hard. Pen point affected by the hard pad, the strength of writing changed straightly, pen rhythm was significantly weakened. (Fig 23).

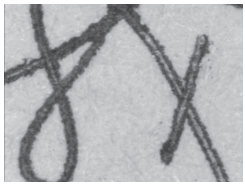

Fig 22: Obvious white line characteristics

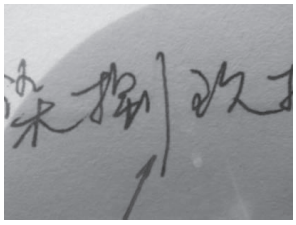

Fig 23: Hard turning strokes

The paper appears broken line. In the process of writing, limited by the size of ledge edge and paper, the writer often writes on the edge of windowsill, so the broken line will be left on the paper.

Desk pad handwriting

Writing proficiency and writing speed are reduced. The surface of table is uneven, and the texture is relatively hard. The handwriting looks awkward.

The strokes are thin. The table is made of wood, belongs to the hard object. The contact area of a pen point and paper in the process of writing is relatively small, the strokes are thin, ball-point pen characteristic is more obvious, the white line characteristic of stroke trace is apparent (Fig24).

Strokes have deformation, the starting point and the finishing point of strokes show towing characteristic (Fig 25). In the writing process, some elongated exaggerated strokes appear. And strokes have jerky jitter characteristics (Fig26).

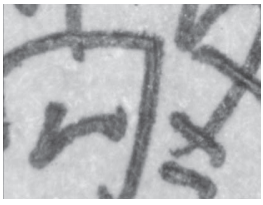

Fig 24: Obvious white lines characteristic

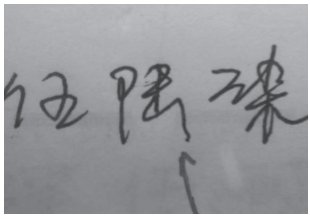

Fig 25: Towing strokes characteristic

Broken stroke traces appear, weightless stroke and modification or retracing on strokes (Fig 28). Because the surface of a table is uneven, the pen point appears local beat, causing the broken stroke trace and the weightless stroke, virtual. The stroke turning is blunt (Fig29).

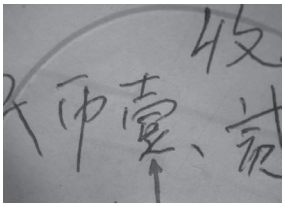

Fig 26: Jerky jitter

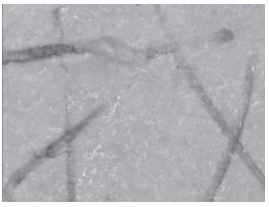

Fig 27: Broken stroke traces

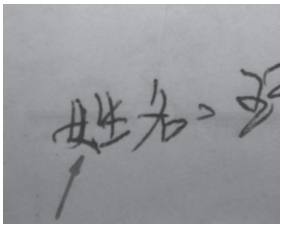

Fig 28: Modification and retracing of strokes

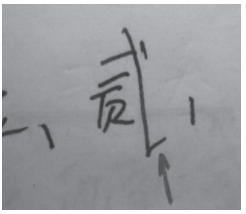

Fig 29: Blunt Turning

RESULTS AND DISCUSSION

In different pad conditions, handwriting variation related to the following factors:

Writer's writing level

The higher the level of writing is, writing skills more skilled people, the ability of overcoming adverse element interference is stronger, his writing level has no obvious decline, personal writing habits exposed more fully; however, if one's writing level is low, the ability of overcoming adverse element interference is also weak, his writing level decreased more obviously, personal writing habits are not easily exposed.

The thickness of the writing paper

When the writing paper is thick, with high stiffness, the handwriting changes are smaller. In the same condition that using a pen and thigh for pad when writing, in a thick A4 copy paper writing, writing more natural fluency, handwriting jitter phenomenon is not obvious, the stroke concreted. In contrast to the relatively thin general writing white paper writing, handwriting jitter phenomenon is more obvious, the strokes are thin, the handwriting looks weightless (Fig 30 & Fig 31)

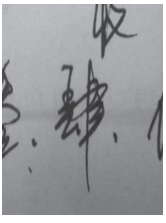

Fig 30: Handwriting on A4 copy paper

Fig 31: Handwriting on common writing paper

The pad surface characteristics

Smoother the pad surface is, more close to the normal writing surface, the handwriting changes are smaller; when the pad surface is hard or soft and embossing; handwriting characteristics have relatively large changes and cannot fully reflect their own writing habit or style. The harder the pad is, the stroke traces characteristic of white line characteristics is more obvious; the softer the pad is the stroke traces characteristic of inked line characteristics is more obvious.

Writing tools

In the same pad condition, using different writing tools, stroke traces have obvious differences. Three kinds of common writing instruments are selected as samples; ball pen handwriting has the biggest changes when the pad changes, therefore, the reflected personal writing habit is not sufficient. While the pen handwriting has the smallest changes with the use of different pads, the personal writing habit is fully exposed.

CONCLUSION

Different pad on handwriting characteristics influence is different. Handwriting samples showed that different pad has influence on characteristics of handwriting in these aspects: writing profile characteristics, mix ratio characteristics, brush strokes characteristics and the stroke traces characteristic. By pad effect without obvious changes of handwriting characteristics are: stroke orders characteristics, typos, words basic writing characteristics, written language, overall layout features, individual special style of writing, words basic writing and most basic brush strokes trend and so on.

ACKNOWLEDGEMENTS

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УДК: 343.983:004

ИНФОРМАЦОННОЕ ОБЕСПЕЧЕНИЕ ЭКСПЕРТНОЙ ДЕЯТЕЛЬНОСТИ

Курин Алексей Александрович
Третьяков Владимир Иванович

Associate Professor **Aleksey Kurin**, PhD
Chief, Full Doctor or Law **Vladimir Tretyakov**
Volgograd Academy of the Ministry of Interior of Russia

Экспертная деятельность в современных условиях достаточно разнообразна по формам и содержанию, что делает направление судебно-экспертных исследований наукоемким и информационно емким направлением деятельности органов внутренних дел. Привлечение информационных ресурсов и информационных технологий сегодня является нормой при производстве экспертиз.

Среди основных направлений использования информационных технологий в работе эксперта необходимо отметить два основных:

– использование автоматизированных банков данных, содержащих экспертно-криминалистическую информацию;

– использование программно-технических комплексов для решения экспертных задач.

– создание, формирование, ведение и использование интегрированных банков данных экспертного назначения посредством информационно-телекоммуникационных систем.

Информатизация экспертной деятельности повышает эффективность работы не только эксперта, но и органов предварительного расследования в целом.

Одной из основных систем информационного обеспечения органов предварительного расследования является система криминалистической регистрации, функционирование которой обеспечивается главным образом подразделениями органов внутренних дел. В системе криминалистической регистрации хранится основная часть криминалистически значимой информации о лицах, причастных к совершенным преступлениям, следах и объектах, изъятых с мест нераскрытых преступлений. Современный курс на информатизацию деятельности органов внутренних дел, автоматизацию централизованных учетов и отдельных видов экспертно-криминалистических учетов позволил добиться положительной динамики раскрываемости преступлений и создал благоприятные условия для развития информационно-телекоммуникационных систем органов внутренних дел.

Информационно-телекоммуникационные технологии в деятельности органов внутренних дел заняли достойное место в силу широких возможностей обработки информации. Удобство и оперативность получения криминалистически значимой информации, своевременность ее передачи для решения оперативно-служебных задач значительно повышают эффективность информационного обеспечения деятельности органов внутренних дел и, как следствие, количество преступлений, раскрытых с помощью учетов различного назначения. Так в 1976 г. с помощью криминалистических, разыскных и оперативно-справочных учетов было раскрыто порядка 4% зарегистрированных преступлений, в 1996 г. – 25 %, в 1999 г. – 43 %, в 2002 г. – 60 %, в 2008 г. – 80 %[1]. Несмотря на приведенную динамику, техническое перевооружение подразделений Министерства внутренних дел Российской Федерации, проведенное в период 2005–2009 гг., не дало должного эффекта. Так, в 2010 г. было раскрыто 1,084 млн. преступлений, при количестве зарегистрированных – 3,5 млн. (порядка 30 %), в 2011 г. не было раскрыто 1080,1 тыс. преступлений, при количестве зарегистрированных 2404,8 тыс. преступлений. В среднем за период 2009–2011 гг., уровень раскрываемости преступлений в абсолютных величинах сохраняется стабильным, что происходит на фоне увеличения относительного показателя раскрываемости преступлений, который составляет порядка 55 %.

1 В России в 2009 г. с помощью криминалистических учетов было раскрыто 80 % от общего количества преступлений.

Несмотря на это, в период с 2007 по 2011 гг., по данным ЭКЦ ГУ МВД России по Волгоградской области, существенно сократилась доля участия сотрудников ЭКП в установлении лиц, причастных к совершенным преступлениям –– с 23 до 6 %. Результативность криминалистических учетов сократилась с 30 до 9 %. Причем, результативность использования автоматизированных учетов АДИС «Папилон» по сравнению с 2010 г. в 2012 г. сократилась в три раза, по АИПС «Портрет-Поиск» – в 6 раз, информация из учета данных ДНК биологических объектов была использована по 32 преступлениям. Данные показатели имеют отрицательную динамику, несмотря на все меры, принятые в плане автоматизации учетов и информатизации деятельности органов внутренних дел.

В 2012 г. использование экспертно-криминалистических учетов существенно расширило возможности работы органов предварительного расследования. Согласно статистическим данным, использование учетов способствовало раскрытию 155,3 тыс. преступлений.

Вопросам информационного обеспечения деятельности органов внутренних дел в настоящее время уделяется пристальное внимание в силу ряда причин:

– необходимости повышения эффективности раскрытия и расследования преступлений на научной основе;
– реализации резервов информационных и телекоммуникационных систем в части логического построения связей между информационными массивами отдельных видов криминалистических учетов, увеличения скорости обработки информации;
– необходимости получения дистанционного доступа к территориально распределенным информационным ресурсам;
– реализации аналитических возможностей информационных систем при обработке криминалистически значимой информации;
– совершенствования нормативной правовой базы функционирования систем телекоммуникации применительно к объектам криминалистической регистрации.

Поэтому целью нашего исследования стала разработка вопросов использования современных информационно-телекоммуникационных систем для решения учетно-регистрационных задач и совершенствования форм и методов использования информационных ресурсов системы криминалистической регистрации в экспертной деятельности. Задачей исследования является создание концепции единой телекоммуникационной системы криминалистической регистрации, объединяющей в себе и раскрывающей резервы системы криминалистической регистрации за счет возможностей телекоммуникационных систем.

В части правовой регламентации использования информационных ресурсов, полиции переданы следующие права (ст. 13 ФЗ «О полиции»):

– запрашивать и получать на безвозмездной основе по мотивированному запросу уполномоченных должностных лиц полиции от государственных и муниципальных органов, общественных объединений, организаций, должностных лиц и граждан сведения, справки, документы (их копии), иную необходимую информацию, в т. ч. персональные данные граждан, за исключением случаев, когда федеральным законом предусмотрен другой порядок получения информации; справки по операциям и счетам юридических и физических лиц;
– запрашивать и поучать от медицинских организаций сведения о гражданах, поступивших с ранениями и телесными повреждениями насильственного характера, полученными в результате ДТП;
– знакомиться с необходимыми документами и материалами, в т. ч. с персональными данными граждан, имеющих отношение к расследованию уголовных дел, производству по делам об административных правонарушениях;
– истребовать для производства экспертиз по письменному запросу уполномоченных должностных лиц полиции от организаций независимо от форм собственности предоставление образцов своей продукции, техническую и технологическую документацию и др. информационные материалы, необходимые для производства экспертиз;
– производить регистрацию, фотографирование, аудио-, кино- и видеосъемку, дактилоскопирование лиц, задержанных по подозрению в совершении преступления,

заключенных под стражу, обвиняемых в совершении преступления, подвергнутых административному наказанию в виде административного ареста, иных задержанных лиц, достоверно установить личность которых не представилось возможным в пределах установленного срока задержания;

– получать, учитывать, хранить, классифицировать, использовать, выдавать и уничтожать в соответствии с законодательством Российской Федерации дактилоскопическую информацию и геномную информацию;

– использовать в деятельности информационные системы, видео- и аудиотехнику, кино- и фотоаппаратуру, другие технические и специальные средства;

– вести видеобанки и видеотеки лиц, проходивших (проходящих) по делам и материалам проверок полиции; формировать, вести и использовать банки данных оперативно-справочной, криминалистической, экспертно-криминалистической, разыскной и иной информации о лицах, предметах и фактах; использовать банки данных других государственных органов и организаций, в т. ч. персональные данные граждан, если федеральным законом не установлено иное;

– использовать на безвозмездной основе возможности средств массовой информации и информационно-телекоммуникационной сети Интернет для размещения информации в целях установления обстоятельств совершения преступлений, лиц, их совершивших, а также для розыска лиц, скрывшихся от органов дознания, предварительного следствия или суда, и лиц, пропавших без вести.

Отдельно определены возможности полиции в части формирования и ведения банков данных о гражданах (ст. 17 ФЗ «О полиции»).

Дальнейшее развитие системы криминалистической регистрации идет по пути использования современных информационно-телекоммуникационных технологий, автоматизации и интеграции информационных ресурсов различной подведомственности и назначения. В этом процессе существенную роль играет специализированное программное и аппаратное обеспечение криминалистической регистрации. Так, в соответствии с приказом МВД России от 30 марта 2012 г. № 205 «Об утверждении Концепции единой системы информационно-аналитического обеспечения деятельности МВД России в 2012 – 2014 годах», которая является вторым этапом развития Единой информационно-телекоммуникационной системы органов внутренних дел Российской Федерации.

Применению компьютерной техники в решении задач учетно-регистрационной деятельности как средству криминалистической техники отводится одна из ключевых ролей. Исключительное значение, по словам В. А. Волынского, это имеет «во-первых, в целом для практики раскрытия и расследования преступлений. Во-вторых, освоение возможностей ЭВМ криминалистикой неизбежно влечет за собой насущную необходимость соответствующего совершенствования традиционных методов и средств криминалистической техники. ЭВМ предъявляет принципиально иные требования к содержанию и качеству обрабатываемой с ее помощью информации. В-третьих, освоение криминалистикой ЭВМ и основанных на их применении информационных технологий сопряжено с необходимостью решения ряда не только методических, но и организационных и даже правовых проблем»[2]. Компьютерная техника стала основой для создания систем передачи криминалистически значимой информации на любые расстояния, тем самым создав условия для развития телекоммуникации, – передачи информации и общения на расстоянии.

Задача создания единой информационно-телекоммуникацион-ной системы криминалистической регистрации является актуальной и своевременной для повышения эффективности использования информационных ресурсов, которыми располагают экспертно-криминалистические подразделения, информационные службы органов внутренних дел, оперативных аппаратов органов внутренних дел, а также информационные ресурсы, находящиеся в совместном ведении. Автоматизация процессов накопления, сохранения, систематизации и использования криминалистически значимой информации в раскрытии и расследовании преступлений существенно упростила перечисленные выше процессы, позволила оптими-

2 Волынский В. А. Криминалистическая техника: наука - техника - общество - человек. М., 2000. С. 34–35.

зировать обработку больших массивов информации посредством внедрения программно-технических комплексов, обеспечивая функциональную коммуникацию между отдельными субъектами правоохранительной деятельности посредством использования локальных информационных систем.

В современных условиях качество информационного обеспечения определяется совокупностью факторов:

– уровнем подготовленности субъектов, осуществляющих формирование и ведение криминалистических учетов;
– уровнем технико-криминалистического оснащения экспертно-криминалистических подразделений в выявлении, фиксации и изъятии криминалистически значимой информации и ее проверке по учетам;
– уровнем комплексности изъятия следов при производстве первоначальных следственных действий;
– наличием информационных массивов объектов и картотек, охваченных процессом автоматизации, что снижает эффективность и полноту информационного обеспечения;
– степенью интеграции экспертно-криминалистических учетов как по уровням их ведения, так и отсутствием связи с централизованными учетами;
– качеством исходных материалов: учетных, информационных карт, фотографических изображений, копий следов;
– уровнем дублирования информации в информационно-поисковых системах;
– скоростью обмена информацией между локальными информационными системами регионов.

Проведенный нами анализ структуры и функционирования системы криминалистической регистрации позволил выявить ряд направлений, требующих научной разработки. Совершенствование связано и направлено на повышение результативности раскрытия и расследования преступлений путем целенаправленного сбора интересующей следствие информации. Стратегическими задачами в этом процессе являются:

– получение положительных результатов оперативной проверки информации по учетам в целях установления личности или принадлежности объекта;
– повышение точности и оперативности информационного обеспечения экспертных исследований за счет формирования справочных ресурсов, экспертных систем.

С точки зрения теории вероятностей результативность поиска имеет прямую зависимость от нескольких факторов:

1. Коэффициент охвата каждого учета. Максимальное значение, равное единице данный коэффициент принимает при условии внесения в учет информации о всех лицах (объектах), проживающих на территории страны или ее субъекта, потенциально способных осуществлять преступную деятельность либо которые потенциально могут быть использованы в качестве орудия или средства совершения преступления. Очевидно, что формирование таких массивов довольно проблематично по причине того, что федеральные законы о государственной дактилоскопической регистрации и о государственной геномной регистрации не дают такой возможности правоохранительным органам. Возвращаясь к оценке возможности получения информации из криминалистических учетов с вероятностью 99 % необходимо, чтобы хотя бы один из криминалистических учетов (например, дактилоскопический) был заполнен на 100 %, что также не представляется возможным. Поэтому нужно воспользоваться совокупностью связанных учетов, содержащих информацию об одном объекте.

2. Количество взаимосвязанных учетов, содержащих информацию об одном объекте регистрации. Вероятность получения информации из криминалистических учетов связана с коэффициентом охвата учета и количеством связанных учетов. Если рассматривать учеты, стабильно дающие результаты, содержащие информацию о человеке, то к ним необходимо отнести учет следов рук, данных ДНК биологических объектов, субъективных портретов, фоноскопический учет. Для получения информации из перечисленных учетов

с вероятностью 99 % необходимо, чтобы каждый из них был заполнен на 78 % от потенциально возможного количества объектов. Среднее фактическое заполнение совокупности учетов составляет порядка 20 %, что соответствует результативности учетов 30 % и соотносится с уровнем раскрываемости преступлений. Результативность экспертно-криминалистических учетов определяется как отношение количества преступлений, по которым в результате использования экспертно-криминалистических учетов дана разыскная информация, к количеству раскрытых преступлений.

3. Полнота изъятия комплекса следов при производстве первоначальных следственных действий, оперативность проверки их на принадлежность лицу (объекту). Комплектность изъятия следов (объектов) на осмотрах мест происшествий определяется как отношение количества осмотров мест происшествий с изъятием следов каждого вида к общему количеству ОМП. Комплексность изъятия следов при производстве осмотров мест происшествия варьируется в диапазоне от 0,94 до 1,2.

В настоящее время система показателей, применяемых для определения ведомственной оценки по направлению экспертно-криминалистической деятельности, включает в себя следующие критерии: криминалистическое обеспечение осмотров мест происшествий, эффективность работы по раскрытию преступлений, экспертно-криминалистическое обеспечение раскрытия и расследования преступлений.

Первые два фактора объяснимы с позиций теории вероятности. Вероятность положительного результата поиска будет определяться величиной коэффициента охвата и количеством учетов, в которых имеется информация об одном лице или объекте. Причем положительным результатом поиска можно считать установление совпадения хотя бы по одному учету. В рамках сформулированной задачи мы подошли к вопросу оптимизации количественных и качественных показателей работы системы криминалистической регистрации. Увеличение количества признаков регистрируемых объектов, с одной стороны, приводит к появлению новых видов учетов, но с другой – делает громоздкой всю систему в целом. Поэтому для решения поставленной задачи необходимо сформулировать совокупность граничных условий:

– максимальное быстродействие системы;
– максимальный объем информации за минимальное количество обращений к системе;
– результативность экспертно-криминалистических учетов, определяемая как отношение количества преступлений, по которым в результате использования экспертно-криминалистических учетов дана разыскная информация, к количеству раскрытых преступлений;
– отсутствие дублирующей информации об одном объекте регистрации, но наличие связанной информации в разных учетах;
– конечное значение учетов, содержащих информацию об одном объекте регистрации;
– охват учетами всех граждан страны, а также лиц без гражданства и иностранных граждан;
– интеграция криминалистических учетов с информационными ресурсами органов государственной власти, других ведомств;
– наличие единой информационно-телекоммуникационной системы, обеспечивающей логическую и техническую связь.

Очевидным становится факт, что реализация этих условий на основе использования ресурсов системы криминалистической регистрации не представляется возможной. В решении поставленной задачи необходимо использовать информационные ресурсы других правоохранительных органов, органов государственной власти, организаций и учреждений, а также построения информационной логистики системы криминалистической регистрации. Естественно, что назначение информационных ресурсов разных министерств, ведомств и организаций не совпадает. Формирование, ведение и использование учетов правоохранительных органов регламентировано ведомственными документами, а сами учеты ведутся только подразделениями ОВД. Остальные правоохранительные органы предоставляют информацию в соответствии с требованиями соответствующих нор-

мативных документов. Однако использование учетов других организаций и учреждений осложняется иными формами представления информации и структурой, которые обусловлены иным назначением информационных систем. Например, информационное обеспечение медицинских учреждений нацелено на формирование истории болезни, учет обращений к специалистам, формирование и выписку рецептов, больничных листов и т. д.

Несмотря на это, преимущества такого подхода объясняются расширением направлений поиска и получением развернутой информации по конкретному объекту регистрации, попавшему в поле зрения правоохранительных органов. Указанные выше системы не входят в систему криминалистической регистрации, но могут быть использованы как источники потенциальной криминалистически значимой информации.

Естественно, что не всякая информация, действительно имеющая отношение к расследуемому преступлению, перейдет в разряд криминалистически значимой. Причиной тому совокупность объективных и субъективных факторов. К объективным следует отнести неполноту информации, результатом которой стали факторы, оказывающие влияние на сохранность следов, степень отображения признаков, т. е. на сохранность исходных данных и первичной информации о событии преступления и другие, к субъективным — компетентность субъекта расследования в вопросах аналитической обработки информации.

Для обеспечения этих условий необходимо производить обработку данных из всей совокупности информационных массивов и использовать для работы с этими данными совокупность информационно-поисковых и информационно-аналитических систем, связанных между собой по функциональному признаку: экспертные, поисковые, аналитические, геоинформационные. Последовательность решения задач, связанных с поиском и идентификацией должна осуществляться в логической последовательности, как «от общего к частному», так и «от частного к общему».

Связь учетов (централизованных, экспертно-криминалистических, справочно-вспомогательных) должна выстраиваться на стадии их формирования, с учетом практики производства судебных экспертиз и учетно-регистрационной деятельности.

В основу объединения информационных массивов целесообразно закладывать общность регистрационных признаков. Последнее направление связано с внедрением прогрессивных средств и методов сбора, хранения, поиска и передачи регистрационной информации. Процессы интеграции знаний находят свое воплощение в объединении информационных ресурсов, их системности.

Существующая система криминалистической регистрации хорошо структурирована по уровням формирования и ведения учетов. Если говорить о связях в пределах одного уровня, но разных видов учетов, то такая связь довольно условна.

Наиболее рациональным и перспективным способом интеграции криминалистически значимой информации является создание единой системы криминалистической регистрации, позволяющей автоматизировать процессы накопления, обработки и предоставления информации за счет использования возможностей информационно-коммуникационных систем. Такой подход позволит добиться повышения количества хранимой информации, скорости ее обработки, обеспечения удаленного доступа к информационным ресурсам. Однако на первый план выходит логика построения связей между отдельными видами учетов, между хранимой информацией в пределах одного учета, анализ всей совокупности информации для получения нового знания и выявления ранее не установленных закономерностей.

Исходя из концептуального аппарата системно-структурного анализа следует, что в системе не существует элементов, не включенных в какое-либо отношение или преобразование. Это говорит о том, что все элементы и подсистемы являются связанными. Связи между элементами могут быть как прямыми, так и опосредованными, т. е. осуществляться через элемент-посредник. Для повышения результативности использования криминалистических учетов требуется выявление внутрисистемных и внешних связей между отдельными элементами системы криминалистической регистрации – криминалистическими учетами, на основе результатов системно-структурного анализа для разработки рациональных путей движения информации и получения рекомендательных

списков, как из системы криминалистических учетов, так и из интегрированных банков данных иного назначения. Результаты поиска могут быть представлены в виде формализованного электронного документа, содержащего сведения о наличии информации в конкретных криминалистических учетах или иных информационных системах.

Подобный анализ является инструментом для дальнейшего уточнения, дополнения и развития признаков по мере уточнения и выстраивания указанных связей. Систему второстепенных и центральных связей необходимо включить в единую иерархическую систему криминалистически значимой информации о признаках объектов. Приоритеты необходимо расставить на основе результатов экспертной оценки и обеспечить первоочередной доступ именно к этим сведениям. Дополнительные сведения предоставляются только по уточнению и формулированию дополнительных запросов на поиск.

В целях выявления скрытых резервов для повышения эффективности работы правоохранительных органов, в 2012 г. основной акцент в работе органов внутренних дел был сделан на использовании и совершенствовании информационного обеспечения раскрытия и расследования преступлений. Для этих целей были разработаны направления информационного обеспечения, предполагающие использование совокупности следующих информационных технологий:

– технологии распознавания и анализа объектов;
– биометрические технологии;
– телекоммуникационные технологии взаимодействия, коммуникации;
– системы аналитической обработки информации, интеллектуального поиска информации в различных информационных ресурсах;
– технологии обоснования и принятия решений;
– геоинформационные, навигационные и спутниковые технологии;
– технологии радиочастотной идентификации;
– технологии имитационного и прогностического моделирования.

Наименее разработанными в научном и практическом плане являются вопросы использования геоинформационных, навигационных, спутниковых технологий, технологий радиочастотной идентификации и информационно-телекоммуникационных технологий. Перечисленные выше направления обладают большим потенциалом и возможностями их в плане получения объективной информации. Они дают возможность быстрого получения достоверных сведений об объектах, подлежащих криминалистической регистрации, а также возможность осуществления контроля объектов, выведенных из гражданского оборота.

Существенный резерв повышения эффективности раскрытия и расследования преступлений заключается в системном использовании существующих информационных технологий, включенных в единое информационное пространство. Построение единого информационного ресурса, по мнению автора, должно строиться на совокупности принципов.

В качестве основных принципов формирования информационных массивов системы криминалистической регистрации, как информационной системы, необходимо выделить те, которые позволят обеспечить полноценную работу всей системы в целом. Так основным принципом является полнота информации обо всех преступлениях и правонарушениях, вносимой в информационные ресурсы. При дифференцированном подходе к регистрации значительная часть лиц, склонных к совершению противоправных деяний остается вне поля зрения правоохранительных органов, что не позволяет своевременной установить лиц, причастных к совершению преступлений. Не менее важным является принцип достоверности информации и ее адекватности реальным объектам, процессам, явлениям и фактам. При условии незначительных искажений (по объективным или субъективным) причинам, поиск информации в массивах будет существенно затруднен или невозможен. При условии выполнения двух первых принципов необходимо учитывать, что информация также подвержена старению, она теряет свою актуальность. Поэтому необходимо производить мониторинг содержания информационных ресурсах на предмет актуальности информации реалиям времени. В большинстве случаев регистрация объектов осуществляется по совокупности признаков, которые должны адекватно отражать свойства объ-

екта, позволять проводить поиск по описанию, которое должно быть минимально необходимым но достаточным для установления объекта по его описанию, данному в системе. Практика показывает, что в силу использования различной терминологии при описании признаков объекта результативность поиска остается низкой. Для совмещения нескольких информационных ресурсов необходимо соблюдать принцип единства описания в логически связанных информационных массивах учетов имеющих отношение к одному объекту регистрации. Отсюда следует принцип взаимосвязи криминалистических учетов, который обеспечит системность построения и использования информации во всем ее объеме. Поскольку одной из проблем является разрозненность учетов по субъектам их формирования, ведения и использования, а также территориальная распределенность необходимо выдержать принцип единства или унификации учетов применительно ко всем субъектам, выступающим в роли источника информации или пользователя.

Помимо перечисленных принципов Ф.Г. Аминев выделяет принципы непересекаемости, т.е. непоглощаемости информационных полей, принцип неискажаемости информации, принцип конфиденциальности регистрируемой информации, согласованности системы централизации и децентрализации системы криминалистической регистрации и принцип полезности регистрационной деятельности для раскрытия и расследования преступлений[3].

Кроме того, построение информационной системы и организация информационных массивов должны способствовать установлению связей между материальными и идеальными следами преступления. Очевидно, что решение широкого спектра вопросов не представляется возможным на основе информации, содержащейся только в экспертно-криминалистических учетах. В процесс поиска и анализа должна быть включена информация из интегрированных банков данных, включая оперативно-розыскную информацию, полученную в результате агентурно-разведывательной работы и электронной обработки материалов дел оперативного учета, а также обновляемые базы данных иных ведомств (юридические лица, владельцы телефонов, автомототранспортных средств, огнестрельного оружия и другие). Такой подход позволит обеспечить полноту информации применительно к одному объекту регистрации, а соответственно возможность установления прямых и косвенных связей объектов или лиц.

Новые возможности открывают в плане анализа информации современные геоинформационных технологии и построенные на их основе картографические системы. Картографические системы дают возможность информации пространственно-временного характера. Запросы могут формироваться применительно к конкретной территории на предмет совершения преступлений конкретного вида или применительно к конкретному виду объектов.

Для расширения возможностей аналитических систем целесообразно применение возможностей систем радиочастотной идентификации, которые имеют непосредственную или опосредованную связь с объектом регистрации. Так, введение чипов в паспорта граждан РФ было предпринято для снижения уровня преступности, контроля миграционных процессов, выявления лиц, имеющих судимость, оперативного проведения идентификации личности преступников и неопознанных трупов, а также повышения эффективности розыска лиц, подозреваемых в совершении преступлений и т.д. Перечень задач, решение которых возможно на основе использования систем радиочастотной идентификации, является контроль оборота оружия, которое находится в разрешенном пользовании; борьба с незаконным оборотом оружия, боеприпасов, взрывчатых веществ и взрывных устройств; преступления, связанные с использованием автомобильного транспорта; исполнение наказаний, не связанных с лишением свободы. Перечисленные задачи напрямую связаны с учетно-регистрационной деятельностью, функционированием централизованных и экспертно-криминалистических учетов.

На современном этапе существует ряд разработок по применению систем радиочастотной идентификации: биометрическая идентификация по электрофизиологическим характеристикам; бесконтактная идентификация автомобильного транспорта; применение электронного мониторинга для наказания лиц, совершивших преступления средней степени тяжести без их изоляции от общества.

3 *Аминев Ф.Г.* Криминалистическая регистрация: курс лекций. – Уфа: РИЦ БашГУ, 2008. С. 39.

Целесообразным является увеличение информационной составляющей следующих учетов:

– учет похищенных и изъятых номерных вещей и документов;
– учет лиц, объявленных в федеральный и межгосударственный розыск;
– учет утраченного или выявленного огнестрельного оружия и иного вооружения;
– учет разыскиваемых транспортных средств;
– учет похищенных предметов, имеющих культурную (историческую, научную, художественную) ценность.

В числе экспертно-криминалистических учетов использование систем радиочастотной идентификации целесообразно при формировании, ведении и использовании следующих учетов:

– учет следов рук;
– учет контрольных пуль, гильз утраченного служебного, гражданского нарезного оружия;
– учет поддельных денежных билетов, бланков ценных бумаг и документов;
– учет протекторов шин транспортных средств.

С точки зрения криминалистической регистрации и получения криминалистически значимой информации, реализация систем радиочастотной идентификации может быть предложена применительно к следующим объектам:

1. Лица, подозреваемые или обвиняемые в совершении преступлений, имеющие непогашенную судимость за совершение тяжких и особо тяжких преступлений с учетом запретов и ограничений, установленных для них судом; несовершеннолетние, помещенные в специализированные учреждения и нуждающихся в социальной реабилитации, для исключения их самовольного ухода из специальных учебно-воспитательных учреждений закрытого типа; лиц, уклоняющихся от исполнения назначенных им судом принудительных мер медицинского характера или принудительных мер воспитательного воздействия; лиц, уклоняющихся от недобровольной госпитализации, назначенной судом в связи с наличием психического расстройства; наблюдения за лицами, страдающими психическими расстройствами, больными алкоголизмом и наркоманией. Устройства радиочастотной идентификации, выполненные в виде несъемного браслета, обеспечивают обмен информацией автоматически.

2. В системе исполнения наказаний для содействия учреждениям и органам уголовно-исполнительной системы в осуществлении контроля за осужденными, розыска и задержания лиц, совершивших побег из-под стражи; лиц, уклоняющихся от отбывания уголовного наказания, от получения предписания о направлении к месту отбывания наказания либо не прибывших к месту отбывания наказания в установленный в указанном предписании срок (п. 13 ст. 12 ФЗ-3 «О полиции» от 07.02.2011 г.)

3. В системе государственной политики в сфере миграции для осуществления контроля за соблюдением гражданами Российской Федерации порядка регистрации и снятия граждан Российской Федерации с регистрационного учета по месту пребывания и по месту жительства в пределах Российской Федерации, а также за соблюдением иностранными гражданами и лицами без гражданства порядка временного или постоянного проживания, временного пребывания в Российской Федерации, въезда в Российскую Федерацию, выезда из Российской Федерации и транзитного проезда через территорию Российской Федерации (п. 13 ст. 12 ФЗ-3 «О полиции» от 07.02.2011 г.)

4. Документы, которые могут быть выполнены, как в традиционной, так и специальной форме. Так, паспорт гражданина страны может сохранить свой внешний вид (ИК встраивается в обложку паспорта), либо выполняться в виде пластиковой идентификационной карты, которая позволит автоматизировать обработку и защиту содержащейся в них информации от несанкционированного доступа, и защиту документа от подделки.

5. Предметы и вещества. Радиоэлектронная метка может крепиться на объекте (огнестрельном нарезном или гладкоствольном огнестрельном оружии, взрывном устройстве заводского изготовления) или внедряться в материал объекта, например, в массу тротиловой

шашки при ее отливке, в материал автомобильной покрышки при изготовлении, в материал одной из основных частей огнестрельного оружия. Одна и та же метка может использоваться на разных этапах жизненного цикла объекта: производство, транспортировка, эксплуатация, хранение, утилизация.

Использование системы также целесообразно для организации складского хозяйства по номерным объектам (бытовая техника с номерным обозначением, средства мобильной связи и т.д.) с целью сокращения продажи контрафактной продукции, розыска номерных объектов.

6. Автомобильный транспорт в целях обеспечения безопасности и регулирования дорожного движения, розыска автотранспортных средств, оформления фактов ДТП, контроля за прохождением ежегодного государственного технического осмотра, для государственного учета основных показателей безопасности дорожного движения; для контроля за перемещением автотранспорта, применяемого для доставки опасных грузов; розыска скрывшихся участников и свидетелей ДТП.

7. Предметы, представляющие культурную (историческую, научную, художественную) ценность. Радиочастотные метки могут встраиваться в материал объекта (полотно картины) или крепиться в труднодоступных местах предмета.

Ключевыми элементами разрабатываемой концепции являются:

– внедрение в практику деятельности правоохранительных органов современных информационных технологий, программно-технических средств, коммуникационных средств приема-передачи информации, создание единой информационно-телекоммуникационной сети и интегрированных банков данных на основе типизации и унификации проектных решений;
– налаживание устойчивого информационного взаимодействия правоохранительных органов с другими заинтересованными федеральными органами исполнительной власти, а также с правоохранительными органами других стран, в первую очередь государств - участников СНГ;
– формирование современной телекоммуникационной инфраструктуры на территории страны; повышение эффективности механизмов государственного управления на основе создания общей информационно-технологической инфраструктуры, включающей государственные информационные системы и ресурсы, а также средства, обеспечивающие их функционирование и взаимодействие между собой.

Объект с присвоенным ему номером обладает определенными свойствами или характеристиками, информация о которых хранится в информационных массивах завода-изготовителя, а при его появлении в сфере уголовного судопроизводства, - в системе криминалистической регистрации. Например, информация о лице, имеющем судимость, может быть представлена в следующем виде: установочные данные, дактилоскопическая формула, фото- и видеоинформация о данном лице хранятся в оперативно-справочных учетах; фонограммы его голоса и речи хранятся в криминалистических учетах. Распределенная таким образом информация разрознена и связана только с ее носителем. Если говорить о связи фонограммы голоса (речи) и дактилоскопической формулы, то ее можно установить лишь на основе результатов судебных экспертиз через принадлежность тому же лицу. Приняв за отправную точку индивидуальный номер устройства местоопределения и его постоянную связь с объектом, потерянная связь отдельных свойств и характеристик объекта восстанавливается. При наличии документированной информации о местоположении объектов на месте преступления и в момент его совершения, а также следовой картины с места преступления, все указанные составляющие образуют единое целое, имеющее отношение к расследуемому событию. При отсутствии следов на месте преступления информация о лицах и объектах, находившихся в момент его совершения может быть использована в качестве ориентирующей для установления обстоятельств, подлежащих доказыванию.

Таким образом, мы можем установить связь между местом преступления, лицами, причастными к их совершению, орудиями преступления, временем совершения преступления и получить документированную информацию на машинном носителе.

Анализируя выше сказанное можно сделать следующие выводы.

1. Преимущества радиочастотной идентификации с успехом могут использоваться для решения учетно-регистрационных задач в системе криминалистической регистрации. Наличие неперезаписываемых меток создает условия для тщательной и надежной фиксации сведений об объектах регистрации и предоставления таких сведений по техническим каналам связи.

2. Возможность совмещения радиочастотной и штриховой метки позволяет применять мультисистемные устройства регистрации и считывания, что делает это средство универсальным для получения, сохранения, поиска и предоставления информации по запросу.

3. Отсутствие необходимости в прямой видимости меток для считывания информации. RFID-считывателю не требуется прямая видимость метки, чтобы считать её данные. Взаимная ориентация метки и считывателя не сказывается на точности считывания информации. Для чтения данных метке достаточно хотя бы ненадолго попасть в зону действия считывателя, перемещаясь, в том числе, с большой скоростью.

4. Большее расстояние чтения. RFID-метка может считываться на значительно большем расстоянии в радиусе до 1 км, в зависимости от модели метки и считывателя. Больший объём хранения данных. RFID-метка может хранить значительно больше информации. На микросхеме площадью в 1 $см^2$ может храниться до 10 Кбайт информации.

5. Поддержка чтения нескольких меток. Промышленные считыватели могут одновременно считывать множество (более тысячи) RFID-меток в секунду, используя так называемую антиколлизионную функцию.

6. Устойчивость к воздействию окружающей среды. RFID-метки обладают повышенной устойчивостью к внешним условиям.

7. Высокая степень безопасности, высокая степень защиты меток от подделки, возможность применения алгоритмов криптографической защиты информации, низкая стоимость.

АННОТАЦИЯ

Статья посвящена вопросам информационного обеспечения учетно-регистрационной и экспертной деятельности. Автор определяет основные направления повышения эффективности экспертной и учетно-регистрационной деятельности, а также предлагает пути решения поставленных задач. В статье рассмотрены современные концептуальные подходы к системно-структурному совершенствованию системы криминалистической регистрации.

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APPLICATION OF GAME THEORY IN THE MODELING FUNCTION OF POLICE NEGOTIATION[1]

Associate Professor **Dane Subošić**, PhD
Associate Professor **Obrad Stevanović**, PhD
Assistant Professor **Stevo Jaćimovski**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Game theory is a mathematical theory of conflict situations between rational decision-makers, whose decisions affect each other. In addition, the conflict situations are characterized by two (or more) opposing sides, with antagonistic goals (mutually opposed and irreconcilable); where the result of each action of participant depends on what action the opponent will choose. Due to the antagonism of parties objectives involved in the negotiations, negotiation is particularly suitable for modeling activities by means of the theory of games. Of special interest to the police organization is the police negotiation organization. In this context, this paper focuses on the modeling of police negotiation through the game theory.

Keywords: game theory, police negotiation, mathematical modeling.

INTRODUCTION

Game theory is a branch of mathematics used to analyze competitive situations ("games") which outcomes depend not only on one's own choices, and perhaps chance, but also on the choices made by other parties ("players").[2] In addition, game theory concerns the behaviour of decision makers whose decisions affect each other.[3] In the field of economy, these situations are called competition. Game theory was created in 1928 when von Neumann proved the theorem on minmax. Later it began to be applied in many other branches of science and life - almost every time you need to develop a strategy in the conflict of interest situations. In the book "Theory of games and Economic Behavior" in 1944, this theory was developed by the economist Oskar Morgenstern and the famous mathematician John von Neumann[4]. They noted that in the economic sciences there are no mathematical models good enough to describe situations in which market participants are facing mutual conflict interests.

Therefore, Neumann and Morgenstern described these situations by abstracted games, conceived as a set of rules and conventions that players must follow. At each stage of the game, players pull certain moves by the set of (un) limited decisions making the right choices and choose that decision that seems best to them on the basis of available information. Fundamental contributions to the theory of games were made by John Nash[5].

Game theory is the basis for many theories of negotiation used by police and diplomacy. Strategies, developed in the game theory by appropriate mathematical tool, offer players the instruction set for any situation that may arise during a game, and one of the key aspects for making right

1 This paper is the result of the research on the following projects: "Development of Institutional Capacities, Standards and Procedures for Fighting Organized Crime and Terrorism in Climate of International Integrations", which is financed by the Ministry of Education and Science of the Republic of Serbia (No 179045), and carried out by the Academy of Criminalistic and Police Studies in Belgrade (2011-2014). The leader of the Project is Associate Professor Saša Mijalković, PhD; "Structure and functioning of the police organization - transition, condition and perspectives", which is financed by the Academy of Criminalistic and Police Studies; "Violence in Serbia – Causes, Forms, Consequences and Social Response", which is financed by the Academy of Criminalistic and Police Studies; "Innovation of forensic methods and their application" (No TR34019), which is financed by the Ministry of Education and Science of the Republic of Serbia.

2 See also: Brams J. S., *Game Theory, International Encyclopedia of the Social Sciences, 2nd ed., forthcoming,* New York University, New York, 2005, 23 February 2013 <http://www.nyu.edu/gsas/dept/politics/faculty/brams/GameTheory.pdf. > p.1

3 Aumann, R.J. "game theory." The New Palgrave Dictionary of Economics. Second Edition. Eds. Steven N. Durlauf and Lawrence E. Blume. Palgrave Macmillan, 2008. The New Palgrave Dictionary of Economics Online. Palgrave Macmillan. 23 February 2013 <http://www.dictionaryofeconomics.com/article?id=pde2008_G000007>

4 Neumann J. von, Morgenstern O., *Theory of Games and Economic Behavior*, Princeton University Press, 1953

5 Nash J. Non-cooperative games, *Annals of Mathematics* 54 (1951), pp. 286-295

decision is to consider the possible moves of rival players. In 1994 "for a pioneering analysis of equilibrium in the non-cooperative games theory" John Nash, John Harnasnhi and Reinhard Zelten received the Nobel Prize in economics. In 2005 for "increasing *our understanding of conflict and cooperation through game-theory analysis*" Robert Auman and Thomas Schelling received the Nobel Prize in economics.

The paper will discuss the theory of games in the function of modeling of police negotiation for resolution of conflicts situations. The police have a role in resolving conflict situations in the field of security. In doing so, it has a duty to protect also the security of holders of threat. Minimization of harmful effects to the life and health of all participants in the conflict requires the application of police methods in the resolving non-compulsory conflict situations. One of these methods is negotiation.

Negotiation is a process of mutual persuasion of opposing sides in the communication in terms of antagonism of their goals. Police (security) negotiation is usually carried out in the cases of kidnapping, hostage situations, severe forms of extortion, riots in prisons, occupation of buildings, street demonstrations, threats of suicide and homicide (murders), threats to the police or third parties by weapons or explosive devices in the preparation and implementation of police measures, resistance to police measures etc., when it is possible to influence the behavior of perpetrators of conflict situations, with a view to their withdrawal from illegal conducting[6].

Due to the complexity of circumstances in which police negotiation is implemented, it is necessary for its modeling, to predict its effects to the greatest possible certainty. Maximization of police negotiation effects is achieved by optimal strategies through which it realizes. Mathematical (exact) method to do this is the application of game theory. This paper questions the right application of game theory in the modeling function of police negotiation.

BASIC TERMS OF THE GAME THEORY

Basic terms of the game theory are:

1) Game,
2) game with zero-sum
3) move
4) strategy
5) optimal strategy
6) pure strategy
7) mixed strategy
8) low value of matrix game
9) high value of matrix game
10) Saddle point of matrix game
11) value of game
12) goal of game theory

Game is a model of conflict situation.

Game with a zero-sum is that game in which the payoff of a participant is identical to the payoff loss of another participant.

Move is a selection of one of the possible alternatives available to participants in the game.

Strategy is a set of rules that uniquely determine the choice of gait of each participant in the game.

Optimal strategy is a kind of strategy that during multiple repeated games provides the participant to achieve the maximum possible medium payoff, i.e., minimum possible medium loss. In the game theory there is already mentioned principle (criterion) of the minimax. It is expressed by the view that a player in the matrix game (conflict situation simulation) chooses his behavior in a way that maximizes his payoff with, for him, the most adverse action of opponent. By this principle the

6 Subošić D., *Organizacija i poslovi policije*, Kriminalističko-policijska akademija, Beograd, 2010.

choice of the most cautious strategy for each player is conditioned. At the same time, the minimax is also the basic principle of game theory. Strategies chosen trough this principle are called minimax strategies[7].Pure strategies are at least one strategy that both players have at their disposal, which are predicted to be better than all the strategies of opponents.

Mixed strategy is a complex strategy, which consists in applying more pure strategies in a certain respect. This type of strategy can be reached via the selection probability of one pure strategy (p_1) and selection probability of other pure strategy ($p_2=1-p_1$). At the same time, the value of p_1 is in the range from 0 to 1.

The low value of matrix game is the maximum payoff between minimum payoffs (α).

The high value of matrix game is the minimal loss between maximal effects (β).

The saddle point of matrix game is that point which is expressed by the maximum in its column and by the minimum in its row[8]. It exists in the case when the low and high value of matrix game are of identical values (α = β). If α is not equal to β, there are no saddle. The difference between α and β is "space" in which the participants in the matrix game should demonstrate own abilities, by choice of optimal - mixed strategy.

The value of game (v) is the value between the maximum payoff between minimum payoffs (α) and minimal loss between maximum effects (β). Mathematically expressed, the value of game is the interval: a £ n £ b.

The goal of game theory is the determination of optimal strategy for each participant.

CLASSIFICATION OF MATRIX GAMES

Matrix game is a game that can be realized by the following rules:

1) The game involves two players
2) Each player has a finite set of available strategies
3) The game consists in the fact that each player having no information about the intentions of opponent makes a move (chooses one of the strategies). As a result of the chosen strategy payoff or loss in the game arises.
4) Both payoff and loss in the game are expressed as a number

The strategy of player I will be seen as the row of some matrix, and the strategy of player II as the column of some matrix. The situations in the game are presented by boxes at the intersection of rows and columns. Filled boxes – situations – by real numbers that represent the player's I payoff, we give a task in the game. Resulting matrix is the winning matrix of game or game matrix. Taking into account the antagonism of matrix game, the payoff of player II in any situation means the loss of player I and differs only by sign. No additional explanation on the function of winning player II is required. The matrix that has m rows and n columns is called $(m \times n)$ matrix, and game $(m \times n)$.

There are simple and mixed matrix games. They differ in how the simple games have and mixed have not so-called "saddle point". In addition, the simple matrix games correspond to the situations of certainty, while the mixed situations correspond to the situation of uncertainty[9]. In the connection to it the next image is given.

7 Petrić, J., Šarenac, L., Kojić, Z.: *Operaciona istraživanja*, zbirka rešenih zadataka, knjiga 2, Naučna knjiga, Beograd, 1988.
8 Milovanović, M.: *Odlučivanje u borbenim dejstvima, studija*, Vojna akademija, Beograd, 2004.
9 *Ibid.*

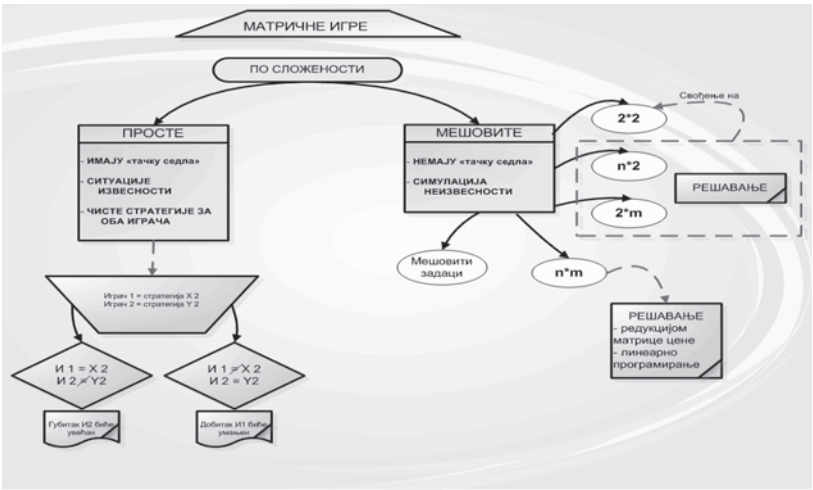

Figure 1. Classification of matrix games[10]

MODELING OF THE POLICE NEGOTIATION THROUGH THE MATRIX GAMES WITH SADDLE

For the games with a saddle is characteristic that they have clear strategies for both players, which by row and column correspond to the saddle point. The example of the police negotiation (see chart below) means that the police (player no. 1) has at its disposal two strategies[11] (x_1, x_2), while the opposing party (player no. 2) also has at its disposal two strategies (y1, y2). For example, both strategies for both parties are indulgent and unyielding negotiation.

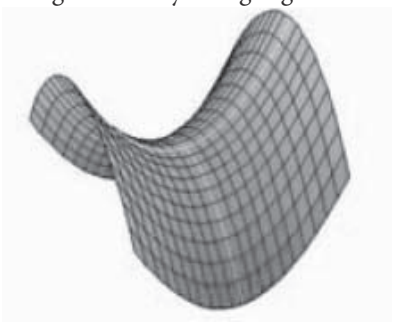

Figure 2. Saddle point

Table 1. Player strategy

Players	Alternatives		
I	x_1	x_2	x_3
II	y_1	y_2	y_3

10 Subošić, D, Daničić, M.: *Bezbjednosni menadžment, organizacija i odlučivanje*, Fakultet za Bezbjednost i zaštitu, Banja Luka, 2012, p. 243.

11 In general case it means that he has at least two strategies

Let's take a concrete example. Game payoff for the player I, which depends on the choice of possible strategies, is given by the following set of data,

$$v(x_1,y_1) = 4, \quad v(x_1,y_2) = -1, \; v(x_1,y_3) = -4,$$
$$v(x_2,y_1) = 3, \quad v(x_2,y_2) = 2 \quad v(x_2,y_3) = 3,$$
$$v(x_3,y_1) = -2, \quad v(x_3,y_2) = 0 \quad v(x_3,y_3) = 8.$$

Find a solution to a game, i.e. determine:

a) optimal strategic pair (x_i, y_j),

b) find the value of matrix game

Resolution: The game defined above can be reduced to the matrix form, as shown in Table 2, where rows correspond to the possible strategies of player I and column to the possible strategies of player II.

Table 2. Game with saddle point

		Player strategy II			Minimum by rows
		y_1	y_2	y_3	
Player strategy I	x_1	4	-1	-4	-4
	x_2	3	2	3	2
	x_3	-2	0	8	-2
Maximum by column		4	2	8	

By analysis of the matrix game price, the player I determines that if he chooses strategy x_1 at least he will get is -4, for strategy x_2 *is 2* and if he chooses strategy x_3 minimum payoff is -2. The player I will try to choose such a strategy which corresponds to the maximum among specified minimum payoffs. In our case, it is strategy x_2.

The payoff value, which corresponds to strategy x_2, is called the low value of game and is marked with α. Therefore, we have that

$$\alpha = max_i \, min_j \, (a_{ij}) = 2$$

By analysis of the matrix game price, the player II determines that if he chooses strategy y_1 the maximum what he can lose is 4, for the strategy y_2 is 2, and if he chooses strategy y_3 the maximum that he can lose is 8. The player II will try to choose such a strategy corresponding to the minimum of specified maximum losses in each column. In our case it is strategy y_2. Thus, the value obtained is called the high value of game and is marked with β. Therefore, we have that

$$\beta = min_j \, max_i \, (a_{ij}) = 2$$

If the high value of game is equal to the low value of game for such matrix game is said to have a saddle, and solution to the game is in the domain of pure strategies. In other words, if both players find at least one strategy that is the best according to prediction in relation to all the strategies of his opponent it is said that the game has as solution the pure strategies as optimal. This is possible only if the matrix game has a saddle. In this case, the value of game is

$$v = \alpha = \beta .$$

In our case, the matrix game has the saddle and optimal strategies are in the domain of pure strategies, namely:

I player - strategy x_2,
II player - strategy y_2,

and the low value of game is equal to the high value of game, i.e.

$$v = \alpha = \beta = 2.$$

The element $a_{22} = 2$ in the matrix a_{ij} is called the saddle of matrix game. If the player I applies any other strategy, not the strategy x_2, and player II remains at the optimal strategy, the payoff of the player I will be reduced. Also, if the player II tries any other strategy and not y_2, and the player I maintains its optimal strategy; the loss of player II will be increased[12] .

12 Petrić, J., Šarenac, L., Kojić, Z.: *Operaciona istraživanja*, zbirka rešenih zadataka, knjiga 2, Naučna knjiga, Beograd, 1988.

POLICE NEGOTIATION MODELING THROUGH MIXED MATRIX GAME

Mixed matrix games are divided into: matrix game (2×2), matrix game $(n\times 2)$, matrix game $(2\times m)$ и $(n\times m)$. Solving the matrix games $(n\times 2)$ and $(2\times m)$ is conducted by reducing them to the matrix game (2×2). Solving the matrix games *n* x *m* can be done by reducing the price matrix and linear programming. Finally, in addition to the above, there are also mixed tasks.

Mixed matrix games (2×2) are the matrix games types characterized by existence of two pure strategies of each participant (police negotiator and police opponent), and there is no" saddle", which is why their solution lies in the field of mixed strategies. Solving the matrix game is shown in the following example.

While the party I (police) calls a dangerous criminal whose arrest is in progress, to surrender, the party II (dangerous criminal) refuses to surrender. In order to minimize harmful effects to the life or health in this conflicting situation, there comes to negotiation. The task is: find the low and high value of matrix game (α and β), determine the optimal strategies of participants and the value of game *(P, Q, v)*. The probabilities for all combinations of opposing party's strategies are given in the following table.

Table 3: The probabilities for all combinations of opposing parties' strategies

	y_1	y_2	Minimum by row
x_1	*0,4*	*0,2*	***α = 0,2***
x_2	*0,2*	*0,6*	*0,2*
Maximum by column	***β = 0,4***	*0,6*	

The high and low value of matrix game has no identical values (α ≠ β), so that the matrix game does not have: "saddle" It also means that the matrix game has an optimal strategy in the mixed strategies domains. Therefore, it is necessary to calculate the mixed strategy vectors P and Q, as it in the requested task.

The vector of mixed-strategy negotiation (police) party I is $P=\begin{bmatrix} p_1 & p_2 \end{bmatrix}$ where

$$p_1 + p_2 = 1,$$

respectively

$$p_1, p_2 > 0.$$

On the other hand, the vector of mixed strategies by police opponent II is $Q=\begin{bmatrix} q_1 \\ q_2 \end{bmatrix}$, where

$$q_1 + q_2 = 1,$$

respectively

$$q_1, q_2 > 0.$$

This means that the party I (police negotiator) will choose strategy x_1 with probability, p_1, and this probability is higher than zero and so on. The matrix game value, for general case, is defined by the following equation:

$$v(P,Q)=\sum_{i=1}^{n}\sum_{j=1}^{m} P\cdot A\cdot Q=\sum_{i=1}^{n}\sum_{j=1}^{m} a_{ij}\,p_{ij}q_{ij}$$

The table $A=[a_{ij}]$ is called a payoff matrix and with it the game is entirely determined. In general, a zero sum game in which the first player has m pure strategies and the second player with n pure strategies is given by m × n matrix:

$$A=\begin{bmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \vdots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{bmatrix}$$

The rows correspond to the strategies of first player, the column to second player, and the number a_{ij} determines payoff to the first player if he chooses i-th and his opponent j-th strategy. Positive number means that player gets the appropriate amount, and negative that he loses.
Von Neumann Theorem: For every zero - sum game for two players, there is a pair of strategies P_0, Q_0 and number v with properties[13]:

1) If the first player uses the strategy P_0 his expected profit (mathematical expectation) is at least v, ie. $E(P_0,Q) \geq v$ for each Q;
2) If the second player uses the strategy Q_0 expected profit (mathematical expectation) of the first player is not greater than v, ie. $E(P,Q_0) \leq v$ for each P;

Due to this theorem the terms of optimal strategy and the values of game make sense for all the games, not only for strictly defined. Rational players will choose strategies P_0, Q_0 and then the expected payoff of the first player will be equal to the value of game v. If the first player chooses a strategy that is not optimal, his expected payoff can be greater than v for some strategies of second player, but there is the strategy Q for which the expected payoff is less than v. Analogously, if the second player chooses a strategy that is not optimal, the first player has strategy P in which the expected payoff is greater than v.

Von Neumann's theorem can be proved by reduction to the linear programming problem. Linear programming deals with the minimization and maximization of linear functions of several variables which are subject to the conditions set by linear inequalities. There are more efficient algorithms for solving such problems, among them the simplex method is the most popular. It is shown that for the game with payoff matrix $A = [a_{ij}]$ finding the optimal strategy of the first player R $P_0 = [n_1 \ n_2 \ ... \ n_m]$ is equivalent to the linear programming problem[14]:

$$\begin{gathered} v \to \max \\ v \leq a_{1j} p_1 + .. + a_{mj} p_m, \quad j = 1,.., n \\ p_1 + .. + p_m = 1 \\ p_i \geq 0, \quad i = 1,.., m \end{gathered}$$

Finding the optimal strategy of second player Q_0 is equivalent to the following linear programming problem.

$$\begin{gathered} u \to \min \\ u \geq a_{i1} q_1 + .. + a_{in} q_n, \quad i = 1,.., m \\ q_1 + .. + q_n = 1 \\ q_j \geq 0, \quad j = 1,.., n \end{gathered}$$

According to one of the fundamental theorem of linear programming, duality theorem, the maximum from the first problem is equal to the minimum of second problem, $v = u$. It is the value of game, and amount of variables $p_1,.., p_m$ and $q_1,.., q_n$ (for which the maximum and minimum are achieved), are the components of optimal strategy for the first and second player.

The specific problem given in Table 3 can be solved by means of mathematical package *Mathematica* 8.

```
Maximize[
 {v, v ≤ 0.4 p1 + 0.2 p2, v ≤ 0.2 p1 + 0.6 p2, p1 + p2 == 1, p1 ≥ 0, p2 ≥ 0}, {v, p1, p2}]

{0.333333, {v → 0.333333, p1 → 0.666667, p2 → 0.333333}}

Minimize[
 {u, u ≥ 0.4 q1 + 0.2 q2, u ≥ 0.2 q1 + 0.6 q2, q1 + q2 == 1, q1 ≥ 0, q2 ≥ 0}, {u, q1, q2}]

{0.333333, {u → 0.333333, q1 → 0.666667, q2 → 0.333333}}
```

At the same time, the value of matrix game is:

$$n = 1/3 \ (0{,}33).$$

13 Petrosyan L.A., Zenkevich N.A., Semyna E.A., *Game theory*, Higher School, Moscow, 1998.
14 Danilov V.I., *Lectures on game theory*, New Economic School, Moscow, 2002.

Checking this option, we can make the following comparison:

$$a \pounds \mathbf{n} \pounds b,$$

i.e. replacing the given values by calculated, we get:

$$0{,}2 \pounds \mathbf{0{,}33} \pounds 0{,}4.$$[15]

CONCLUSION

The study tested and confirmed the applicability of game theory in the function of police negotiation modeling. In doing so, the police negotiation is modeled by the simple and mixed matrix games with zero-sum. The importance of obtained knowledge in this work is evident in yet untapped possibilities for the optimization of police negotiation in the terms of choice of negotiators' optimal strategy.

The application of game theory during police negotiation allows the maximization of police negotiation effects from one and minimization of counteracts to the police, on the other hand. Thus, as the negotiation is very uncertain police activity, which may cause serious consequences in solving the most complex security tasks, it becomes more effective and efficient, primarily due to the optimization and predictability. Therefore, the development of police negotiation may be partly ensured by application of game theory, by development of proper databases on conflict situations and by training of police negotiators for their mathematical modeling.

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15 Petrić, J., Šarenac, L., Kojić, Z.: *Operaciona istraživanja*, zbirka rešenih zadataka, knjiga 2, Naučna knjiga, Beograd, 1988.

TOPIC I

MANAGEMENT IN STATE ADMINISTRATION

UDC: 005.96

HUMAN RESOURCE PLANNING AND RECRUITMENT

Full Professor **Slobodan Ceranić**, PhD
Teaching Assistant **Tamara Paunović**
University of Belgrade, Faculty of Agriculture

Abstract: Great scientific discoveries, rapid changes in development and high latitudes in the information flows are the things that are specific for the present time (nowadays). Knowledge and education level of human resources are, in fact, the energy in a race with time, with future. Therefore, the education system should be based on future relations and less on the past, because the human resources should be planned for future development, and not only based on existing workplaces.

Keywords: human resources, personnel, planning, recruitment.

THE CONCEPT AND DEFINITION OF HUMAN RESOURCE PLANNING

Human resource planning is the process in which organizational objectives, contained in the mission and plans, are transformed into appropriate objectives of human resource management. It is considered that the planning, or, bringing the right personnel in the right place and at the right time is very important in order to achieve rapid and increscent results.

Content and carriers of the planning process are shown in Figure 1.

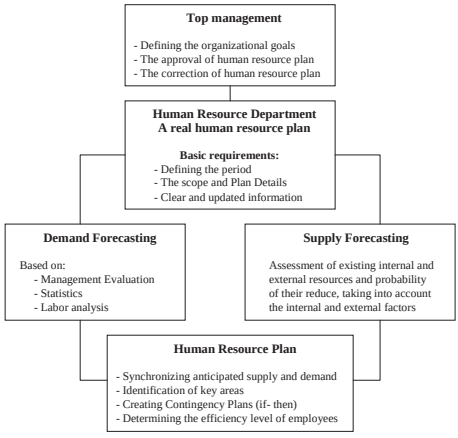

Figure 1. Human resource planning in a business system
Source: Tyson, S., Jork, A. (1996): Human Resource Management, 3rd Edition, Made Simple Books

HR PLANNING MODELS

Human resource planning is in fact, elaboration of plans aimed to fill the future job positions in a business system that is based on the forecasting of available job positions and the decision about whether the jobs will be filled by candidates who are already part of the business system or candidates who are outside the system. HR planning is an integral part of the strategic planning of any business system. Traditional model of human resource planning is shown in Figure 2.

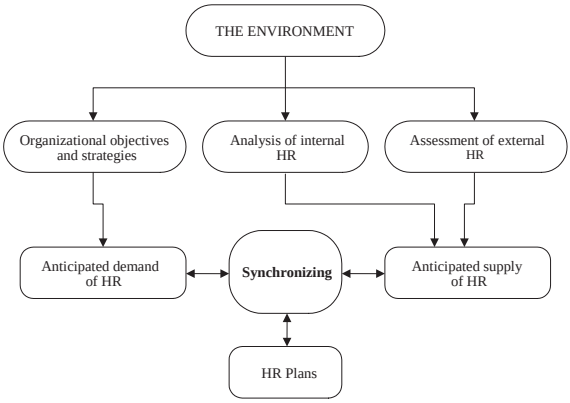

Figure 2. Traditional model of human resource planning
Source: Mintzberg, H. (1994): The Fall and Rise of Strategic Planning, Harvard Business Review

A new approach to HR planning emphasizes the growing need of business systems, to integrate the planning process of number and the ability of employees, to integrate the relation between employees and the organizational culture, organizational design and to develop individual work, formal and informal systems.

The model shown in Figure 3 tries to integrate all aspects of planning and indicates where we are now, where we want to go and what should we do in order to achieve the transition within the organizational environment.

When defining the future of HR, the number and the ability of employees stand out as the most important factors, and both subjective and objective approach is used.

The needs for HR may be the result of:

- the expected turnover of employees
- quality and skills of employees
- strategic decisions in order to improve the quality of products or services
- technological and other changes, resulting in increased productivity
- available financial resources.

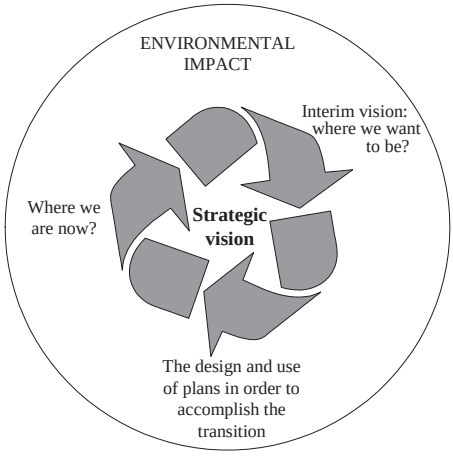

Figure 3. An integrated model of human resource planning

OBJECTIVE METHODS

Statistical Methods

Statistical methods are based on the presumption that, in the future, there will be a similar continuity as in the past. Past trends are projected to the future, to simulate and display the model of what would happen in the future.

The above-mentioned methods are rarely used today because they are unacceptable in an environment with a discontinuous change.

Other statistical models compare a demand for certain number of employees with more specific organizational circumstances, as well as the environmental circumstances. These methods are also used to calculate the demand for personnel as a result of organizational activities.

These models can take into account determining factors such as production, sales or service quality. It should be noted that these models can be adjusted in such a way to include anticipated changes in their use-primarily due to factors such as the introduction of new technology or a different organizational forms, eg. teams for achieving high results.

Work Study

This method is based on the study of time and a detailed analysis of the work that is performed in order to obtain a single operating hours per production unit. Standards are made according to the level and number of employees required to perform job duties. It is important that standards are regularly checked since the development of standards and grouping of tasks partially rely on human evaluation, and therefore, is seen as subjective.

SUBJECTIVE METHODS

Managerial Assessment

This method is based on manager's estimates of the labor requirements and, that are, on the other hand, based on past experiences and corporate plans. It is a method that is difficult to harmonize with changes substantially different from the previous ones, and it is also less accurate than statistical methods, although is more comprehensive. This is a simple method; it can be applied quickly and is not limited to historical data, as are the statistical techniques.

When analyzing the current situation, for each organizational unit, it is necessary to hear the opinion of strengths and weaknesses of the business system, but also what can lead to progress. This approach can be used to provide information related to:

- motivation of employees
- business satisfaction
- organizational culture
- how to manage people
- attitude toward minority groups and equal opportunity
- commitment-dedication to the business system and the reasons for it
- clarity of business goals
- organizational issues and problems
- what could lead to success
- organizational power for further progress

CURRENT AND PROJECTED NUMBER OF EMPOYEES

Forecasting Internal Candidates

Previous forecasts represent only a half of the human resources, and indicate the number of employees that are required. In the next step, the manager is given the task to provide offer consists of internal candidates. List of qualifications can facilitate the prediction of internal candidates.

This list includes performance data, education and training opportunities for each employee. Diagrams of employee's replacement (Figure 4) represent the current performance of employees who are potential candidates for important job positions, and also their opportunity to get promotion

List of qualifications for a larger number of employees, cannot be thoroughly updated manually. As a rule, the work is done by computer. Employees participate in internet -online testing, where they are asked to describe their previous education and experience. When managers need a suitable person for a specific job, they enter into the computer that certain position and computer search the database of potential candidates.

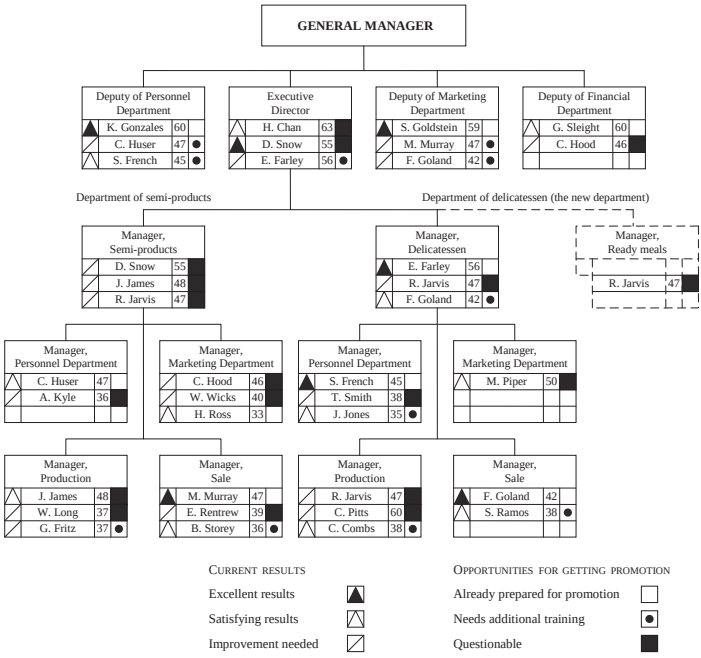

Figure 4. Maps replacement for job positions in management
Source: Dessler, G. (2007): Fundamentals of Human Resource Management, Florida International University

Forecasting of External Candidates

If there are not enough qualified internal candidates to fill the jobs positions that are expected to be free, employers anticipate an offer of external candidates – i.e., those who are already working in the business system. Therefore, it may be necessary to predict the overall economic conditions in the local market, as well as conditions in the labour marketplace.

The first step includes the overlook of general economic conditions as well as, for example, the prevailing rate of unemployment. If the rate of unemployment is lower, then the offer of candidates is weaker, and is more difficult to recruit.

The conditions of the local labour market are also important. For example, the rise of companies that produce a popular product may contribute to the low rate of unemployment in the wider area, which does not have to refer to the general economic conditions in the country.

PERSONNEL RECRUITMENT

The Basic Concept

Recruitment is a possibility of filling job vacancies. When the workforce planning is done, then the recruitment process continues. When it is determined that there is a job position to be filled, the candidate database is created, using internal or external sources. The intention is that the money for recruiting is spent properly.

Dilemma of whether candidates should be found on the Internet or in the newspaper ads, or hired by the agency, should be in the function of selecting the best candidates.

General opinion is that recruitment is a less complex task, but that opinion should not be accepted. Recruitment should be in the function of the strategic plans of the business system.

It should be noted that recruitment process in fact depends on various aspects and policies of human resource management that, on the other hand, are not closely related to recruiting.

Recruitment process consists of the following steps:

- determining the job positions to be filled,
- procedure of determining the candidates, both within the company and outside,
- defining available methods of recruitment, such as tests, checking biographical information and medical examinations, in order to create a short list of candidates,
- formation of documentation on potential candidates,
- the person responsible conduct an interview with the candidates who applied for the job positions, and decide which candidate (candidates) should be offered the job.

When recruitment is used? As a rule, the recruitment of new candidates is usually used when there is available job position.

Recruitment is the process of attracting candidates in such numbers that will enable companies to choose the best candidates to fill job vacancies.

As pointed out by Živković (2012), there are many different possibilities to fill the job position in a business system:

1) Organization of work: if a person leaves a job because there was not enough work or, other employees formed a closed group in which it was difficult to enter. It also can function between departments, whereas, the excess of people in one place is transferred to another place.
2) The use of overtime: extra production is realized through overtime. Personnel managers rarely use overtime, which is illogical if there is a high unemployment rate.
3) Mechanization of work: a business system has the ability to fill the job position by increasing the degree of mechanization, automation and robotics.
4) Setting the working hours: working hours or flexible working hours can be adjusted by introducing the shift-work.
5) The introduction of part-time work: replacement of full-time jobs with part-time jobs is widespread, and has potential advantages because it allows flexibility, since a full time job can be divided into two part-time jobs, located in two different places.
6) Transferring the part of work: this capability means that the employer avoids the costs and obligations of employing people, transferring them to another employer (computer programming).

Recruitment Sources

As a general rule, recruitment is linked with the recruitment agencies and ads; there are a number of different approaches, and each one is more or less appropriate for different circumstances. Therefore, most employers use multiple sources of recruitment at different times.

Advertisements in the local press	93%	Business scouts	50%
Advertisements in the professional press	92%	Business fairs and Open days	46%
Advertisements in the national press	81%	Internet	44%
Recruitment agencies	78%	Business contacts and communication	43%
Notifications within the company	78%	Notifications outside the company	20%
Business centres	77%	Advertisements for job vacancies	19%
Educational association	62%	Local radio	12%
Applications without previous ads or competition	62%	Distribution of pamphlets	5%
Business counselling	49%		

Figure 5. The use of different recruitment methods in 280 business systems
Source: IRSC (1999)

Internal Sources of Candidates

Internal recruitment is, in fact, giving opportunities to candidates from the business system, with other jobs, to participate in filling the job vacancies. The main internal sources of recruitment are:

1) *Improving employees at a higher hierarchical position.* Sometimes the business system needs candidates who are already familiar with the standards, procedures, culture, strategy and mission of a business system.
2) *Reassignment of employees to another job position.* Reassignments of employees have a permanent character and are commonly used for staff development, since they thereby gain a broader perspective of a business system where they work.
3) *Rotating the temporary jobs among employees.* Jobs rotation is used as a way to familiarize employees with the various aspects of the work process where they participate, as a method of training for the job, but also as a way to eliminate the negative aspects of high specialization.

External Sources of Candidates

External recruitment of candidates includes a search for candidates from the external labor market. Recruitment methods include:

1) advertising,
2) recruitment agency,
3) executive consultants,
4) recruitment in colleges and interns,
5) staff recommendations and unannounced candidates,
6) online recruitment,
7) recruitment of more diverse workforce.

Advertising as a Source of Candidates

If internal candidates can not satisfy the needs in selection process, then the management is turning to external sources, and as a rule it begins by advertising the job vacancies.

Before making a decision on where to post an ad, it is necessary to take into account the choice of media, as well as the content of ads. Selecting the best media depends on the type of job that the candidates are looking for. When selecting manual workers and office workers, administrative staffs of lower level, then the local newspapers are the best choice. However, when it comes to selection of specialized workers, publishing in journals of national significance is an option.

There are many advantages and disadvantages of different methods of job advertisements. For more details, see the following figure.

Internal advertising

Advantages:

a) The maximum amount of information for all employees who may apply for the recruitment
b) Opportunity to apply candidates who are already employed
c) If an internal candidate is appointed, the shorter is a period of adaptation
d) Rapidity
e) Costs

Disadvantages:

a) A limited number of those who apply
b) Internal candidates are not compared with the external
c) It may be illegal or discriminatory.

The list of available jobs that are left outside the organization

Advantages:

a) Cost-effective way to advertise, especially if the organization is close to the center

Disadvantages:

a) A list of available positions can be seen by a small number of people
b) In most cases, only basic information is provided, such as job title or just "available positions"

Publication of the advertisement in national press

Advantages:

a) A list of available positions can be seen by a large number of people
b) Some national newspapers are widely accepted media for those looking for a certain job

Disadvantages:

a) Costs
b) A lot of investments that are "spent" on inadequate people

Publication of the advertisement in local press

Advantages:

a) Advertisements for recruitment will read mostly those who are looking for a job at the local level
b) "Lower consumption"

Disadvantages:

a) Those who are looking for professional and technical jobs generally do not read the local press

Publication of the advertisement in technical press Advantages: a) Advertisements for recruitment will read mostly those who are looking for a job at the local level Disadvantages: a) Relatively irregular publications may request a copy of the ad six weeks prior to its publication b) Inadequate when looking not for experts only, or when experts make choices in professional publications
Internet Advantages: a) Information on job vacancies reaches large number of people b) It's not expensive when you make a web site c) It is possible to make a short list of candidates online Disadvantages: a) It can give a thousands of inappropriate application b) Concerns regarding data privacy can affect in a small number of corresponding applications

Figure 6. Advantages and disadvantages of different methods of job advertisements
Source: Zivkovic, D. (2012): HR Management, University of Belgrade, Faculty of Agriculture

Recruitment Agency

The role of the agency is to connect the supply and demand on the labor market. Their main activity is to find jobs for job-seekers. Lately, more and more agencies are privately owned. These agencies are finding adequate personnel for specific companies, and also perform testing of these candidates.

Companies are opting for using the services of recruitment agencies for the following reasons:

- Company does not have its own office of Human Resources
- Short period of time to fill job position
- Difficulties in forming a data base of candidates with specific qualifications
- For the candidates who are already employed and are interested in job position, provide a sense of comfort in negotiating, because the work is done through an agency.

Recruitment through College

Recruitment through college is used by large business systems that need highly qualified trainees. This type of recruitment is particularly important source of candidates who will be trained for jobs in management. The advantage of this type of recruitment is that for a relatively short period of time a large number of candidates can be interviewed in a single location.

The disadvantage of this process is reflected in the fact that potential candidates are available only at certain intervals during the calendar year, they have no work experience, as well as problems related to the evaluation of candidates who do not have any experience. It certainly raises the question of how many faculties to include in the recruitment process.

Staff Recommendations and Unannounced Candidates

When a company publishes listings on job vacancies, it is expected that the employees recommend a candidate. Some companies even offer a reward for the recommendations that resulted in employment of a candidate.

Recommendations as a way of selecting the candidates have their advantages and disadvantages. Existing employees can provide accurate information about the candidates they recommend, and they usually do that well, because in that way they protect their reputation.

This method of recruitment can provide a better quality of candidates, because they have a realistic picture of the work in that company.

It should be noted that the recommendations can sometimes have the opposite effect. Namely, if an employee's recommendation is rejected, then he becomes dissatisfied.

Online Recruitment

The use of the Internet for recruitment is the most modern achievement in the field of recruitment in general. Internet recruitment has certain advantages. It is important to say that this is one of the cheapest ways of advertising, so if the ad is presented on its own website, it is in fact free. Speed is the following characteristics of advertising through the Internet, since interested persons can immediately submit the required documents.

However, employers believe that the big disadvantage of the Internet is enormous number of applicants who apply. It somehow encourages people who do not have relevant qualifications, or who are from distant places, to apply for that specific job position.

CONCLUSION

HR planning is the process of anticipating the need for human resources in order to reduce costs. This can be achieved by forecasting and by synchronizing supply and demand for human resources.

Methods of forecasting demand for human resources are divided into subjective (qualitative) and mathematical (quantitative), and they respond to the question of how many employees and what kind of professions will require the business system in order to achieve the planned objectives.

HR planning should be an integral part of the strategic planning of any business system.

An important question still relates to whether planned open job positions should be given to people who are already in the business system, or to candidates from the environment.

The result of these two options is more HR plans. People who are already in a business system, maybe, will need additional training and therefore, training plans are needed. In the case of candidates from the environment, it is necessary to decide which sources are used for recruitment.

In situations where there is a need for hiring the workforce, the question is how to handle this complex task? Recruitment is the process of attracting qualified personnel, as well as a selection of the best candidates to fill the job vacancies. Carefully designed a shortlist of candidates, increases the level of confidence among all candidates, and reduce the possibility of inviting people who do not have qualifications relevant to the position.

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A CONTRIBUTION TO THE QUESTION OF PROFESSIONAL DEVELOPMENT OF CIVIL SERVANTS IN THE REPUBLIC OF SERBIA[1]

Full Professor **Dragan Vasiljević**, PhD
Academy of Criminalistic and Police Studies, Belgrade
Associate Professor **Dobrosav Milovanović**, PhD
University of Belgrade Faculty of Law

Abstract: Modern public administration, including the State Administration of Serbia, is facing major challenges. They arise from various sources: environmental problems, economic crisis and intense international competition in the globalized world, demographic changes, ever wider and broader human rights and expectations of the citizens.

The economic and financial crisis has been shaking the world for almost five years. It has renewed the dilemma about the role of the state and its government in regulating the economy and financial markets. The pendulum has seriously started to sway from the neo-liberal model of economy, deregulation, new public management and the other principles focused on the liberal market in the opposite direction. Specifically, there is a tendency to fully regulate social relations in order to avoid any possible risk. The well-organized public administration with civil servants "armed" with knowledge and skills can significantly contribute to success of the regulation.

The key answer to these problems lies in the recruitment of quality civil servants, their continuous professional training based on the development of creative thinking in terms of analysis of the causes of the problems and ways of solving them. This paper may contribute to this end.

Keywords: public administration, state administration, civil servants, professional development, control, legality, professionalism, depoliticization.

INTRODUCTION

Changes that the world is facing are epochal and cover an enormous range; they happen suddenly, producing tension and confusion. Responding to the pressures of the wider environment, many countries adopt strategies and action plans for managing such changes. In such an ambience, personnel responsible for coping with the largest share of this burden cannot be prepared using stereotypical and outdated development programmes, because such attempts are condemned to failure from the very outset. Preparation and development of civil servants based on dynamic and innovative curricula are a foundation for introducing synergy between intensive sustainable economic development of the state and its administrative system. Therefore the curricula aimed at professional training of civil servants should be - in terms of their contents, methods, duration, and number of participants - in the function of reforming the state administration.

Strengthening the institutional and human resources is the key to a successful reform of state administration. Civil servants should be prepared for their responsibilities through a comprehensive system of professional development. Administrative capacities determine the departmental, sectoral, and functional capacities of state administration to successfully implement the government policy and implement laws and other regulations at all levels. [2]

The educational function falls within the category of the most important and most responsible activities within the system of managing human resources and their potentials within the system of state administration. The theory of administration and other theories, as well as practice, use different terms related to education, professional training, and development of employees. Their

1 This paper is the result of the research on the following project: "Status and Role of the Police in a Democratic State", which is financed by the Academy of Criminalistic and Police Studies.

2 For more detail on the development of administrative capacities and their significance in a democratic legal state, see: E. Pusić, Država i državna uprava, Savremena javna uprava, Zagreb, 2007.

meaning is not always easy to understand, because they are sometimes used as synonyms, although they can denote different things. Even more so, because the training of employees is also referred to using other concepts, such as the education of employees and in-service training.

The paper chooses to use the term professional development and the following pages are dedicated to the issue of the professional development of civil servants in the Republic of Serbia, focusing on some comparative solutions.

THE CONCEPT AND IMPORTANCE OF THE CIVIL SERVANTS' PROFESSIONAL DEVELOPMENT

A number of documents, such as strategies, plans, and programmes, use the term professional development mostly as synonymous with training, education, in-service training and qualification of civil servants. In this context, development is understood as a planned and organized process of acquiring more general knowledge that presents the foundation for mastering specific working skills. In this sense, the typical modalities of the civil servants' professional development include: 1) acquisition of basic computer literacy, 2) learning foreign languages, 3) specialist training suited to the needs related to the scope of work of certain state organs, 4) acquiring higher levels of education, etc. These various forms of professional development contribute, on the one hand, to enhanced competences of civil servants, necessary for performing specific working tasks, and, on the other, to strengthening the institutional capacities of the state administration generally.[3]

There are several factors that reinforce the significance of the civil servants' professional development. Some of them are reflected in the necessity of reforming the state administration in order to ensure an increased level of professionalism, as well as in order to adjust and respond to all topical demands that are placed before it.[4] Others are manifested in the need for rationalization, i.e. in reducing the number of civil servants, which creates the need for fewer officials to be professionally qualified to perform duties from within the jurisdiction of state administration organs. In such an environment, permanent and good-quality professional development becomes one of the crucial factors for the effective functioning of the state administration. Besides, it should be borne in mind that professional development is a necessity for both the civil servants and the organs of state administration in which they are employed. Constant changes in the environment call for the organs of state administration to employ trained, responsible, and professionally qualified personnel, while demanding the civil servants to continually acquire new knowledge and master new skills related to the assignments they perform.

When defining the needs for the civil servants' professional development, a number of elements should be taken into consideration: 1) the demands of the working post, 2) specific features of labour and managerial functions, 3) strategic objectives and annual operative plans of the state authorities, 4) established standards of good administration, and 5) problems identified in the functioning of the state organs.

The difference that is always present between the existing and the necessary knowledge, skills, and abilities of civil servants implies the need for their continuous professional development. An additional reason for professional development is the fact that the school system that offers formal education cannot any longer independently respond to all demands of a modern and dynamic state administration. In addition to this, the system of state administration employs officials who have acquired their formal education in different educational systems and in keeping with different curricula. Changes in the methodology and technology of the state administration's functioning require new knowledge and skills and standardization of the existing differences in their education.

Modern businesses require new skills, such as communication skills, conflict management skills, etc. The civil servants are expected to be increasingly capable of communicating, compiling analytic reports, or, in other words, to be 'functionally literate' which is yet another reason for

3 For more details on these issues, see: D. Kavran, Javna uprava-reforma,trening,efikasnost, Savet za raformu državne uprave Vlade RS, Udruženje za javnu upravu Srbije i FON u saradnji sa UNDP-om, 2003.

4 More details on the significance and scope/results of the reform of administration in the Republic of Serbia can be found in: D. Kavran, Elementi strategije upravne reforme u Srbiji, Javna uprava, br.1/2002, Beograd, 2002.

continuous professional development of civil servants. It should also be borne in mind that the proclaimed principles of the functioning of state administration authorities require an exceptionally high level of qualification of the civil servants.[5] For instance, these principles include the following: autonomy and legitimacy; expertise, impartiality, and political neutrality; effectiveness in ensuring the rights of the parties involved; proportionality, respect of citizens; transparency of their work. Here we should bear in mind some specific activities of the state administration: 1) participation in shaping the government policy; 2) monitoring the situation; 3) the enforcement of laws and other regulations and general acts; 4) inspection; 5) taking care of public services; 6) development activities; and 7) other professional activities.[6]

Thus the professional development of civil servants, who are daily expected to behave in accordance with the proclaimed principles of the state administration functioning and the execution of the mentioned duties, should contribute to increasing the institutional capacities of the state administration. That is why one can rightfully expect the first visible results of reform processes in the state administration of the Republic of Serbia to take place in the area of education of employees.

The way in which the need for professional development of civil servants is established comprises a number of elements, including the following: 1) it is necessary to perform an analysis of strategic documents that guide the work of state administration authorities in order to define the priority segments of the civil servants' development, bearing in mind the entire system of state administration; 2) an analysis should be made of the annual reports focusing on the need for the civil servants' professional development; 3) at the close of every form of professional training, the participants should be questioned using evaluation questionnaires in order to establish the quality of the realized training; 4) there should be cooperation with the human resource departments within the organs of state administration, so as to find out what knowledge and skills are necessary for civil servants in the ensuing period. A systematic analysis of all these elements presents a solid foundation on which – depending on the technical and financial possibilities – an annual programme of the civil servants' professional development can be drawn.

The ambition to structure the state administration on the proclaimed principles implies that professional development of the civil servants takes a prominent place in the overall process of the state administration reform. A particular challenge in the case of our country is the process of accession to the European Union.

CIVIL SERVANTS' PROFESSIONAL DEVELOPMENT IN THE PRACTICE OF SOME EUROPEAN UNION MEMBER-STATES

Generally speaking, the majority of the European Union member states can be said to have a systematic approach to this subject-matter. It is characterized by good practice in the field of professional development of the civil servants and a developed civil servants system.[7] The need for civil servants' professional development in these countries was noticed long ago and each of these states has respective national institutions that deal with these issues and have a rich tradition.

Germany

The civil servants in Germany are trained before being assigned to their posts and in the course of their careers. The complex career system based on professional development enables the civil servants to perform not only their work but also all other jobs related to a specific career (group of jobs). This increased flexibility in the management of human resources. To this end, institutes

5 The listed principles of the functioning of state administration have been proclaimed in articles 7-14 of the State Administration Act (Zakon o državnoj upravi, Službeni glasnik Republike Srbije, br.79/2005.).

6 The provisions of articles 12-21 of the mentioned State Administration Act set out the activities and tasks of the state administration in more detail.

7 For an elaboration on the merit system as a modern civil servant system, see the following paper: D. Vasiljević; Z. Vukašinović-Radojičić, The merit system as a contemporary civil service system, Međunarodni naučni skup „Dani Arčibalda Rajsa", Tematski zbornik radova međunarodnog značaja, Kriminalističko policijska akademija, Beograd, 2011.

were established alongside other central institutions for professional development of officials at the federal level – the Federal Academy of Public Administration and the Federal College of Public Administration.

The human resource department provides information on the officials in need of some form of training. The Academy prescribes the basis prerequisites that have to be met in order to attend the training. The Ministry organizes internal instruction courses at which the officials are instructed in order to meet these prerequisites. [8]

Although there is no formal obligation regarding the training of managers, there is a great demand for this type of training because it is considered to be useful for the successful performance of their duty.[9]

Instruction of the newly employed is aimed at introducing the officials into new fields of activities and ensuring their social integration into the working environment. The aim of this instruction is to provide the new employees with the necessary information and assistance so that they should be able to fulfil the tasks that are assigned to them. Special responsibility for this type of training is assigned to the immediate supervisor. The successful orientation and training of the new employees are of vital importance to their motivation, satisfaction, and future performance. [10]

The Federal Academy of Public Administration is the leading central institution for professional development of the public administration employees. It was founded in 1969 as an independent unit of the Federal Ministry of the Interior, with its central office in the city of Brühl. The Federal Academy is responsible for providing practice-orientated training for the employees of the federal administration. Modern professional development is primarily aimed at improving the efficiency of the employees as well as providing prerequisites for the employees to be able to perform various functions within the administration. In this way influence is exerted on the improvement of the quality and flexibility of administration.

The Federal Academy, as the central institution, provides modern interdepartmental training at the federal level and qualification training for all federal agencies in the field of personnel development and training. [11]

The president is the head of the Federal Academy, which is divided into eight training departments. Organizationally, the Federal Academy has administrative cooperation with the Federal College of State Administration which provides logistic support, and the head office of the Academy is in the university campus of Brühl.

The Academy staff organize seminars but none of them have the status of a lecturer. The lectures are given by persons who have practical experience and who are employed in the public administration, research and educational institutions. There is a permanently open invitation for experienced experts in the area of public administration to apply for engagement with the Federal Academy as part-time lecturers.

All federal state organs and their employees have access to the latest information regarding the courses offered by the Federal Academy of Public Administration and other federal educational institutions. The Academy is obliged to submit annual reports. [12]

Spain

Spain has an approach to the professional development of civil servants similar to that of Germany. These activities are realized by the National Institute for State Administration, founded as far

8 As regards training, the Ministry mostly relies on the Federal Academy of Public Administration.

9 In the course of 2009, 227 courses were organized, whteas in the first half of 2010 there were 186 candidates and 121 courses. Training is evenly distributed among the departments.

10 For more information on the legal status of civil servants in Germany and theit profesiional development, see: A. Rabrenović, Osnovni elementi pravnog položaja državnih službenika Savezne Republike Nemačke, Uvod u pravo Nemačke, Institut za uporedno pravo i Pravni fakultet Univerziteta u Beogradu, 2011.

11 More detailed information on the process of professional development of civil servants in Germany and some other countries can be found in the monograph: "Stručno usavršavanje državnih službenika u Republici Srbiji", Beograd 2012, str. 155-180. D. Milovanović, J. Ničić, M. Davinić.

12 About 1800 events and training courses are organized annually. Each of the events is attended by 5 to 25 participants.

back as 1961. The functioning of the Institute is the responsibility of the Ministry of State Administration. The Institute is managed by seven vice-directors.

The lecturers at the Institute are university professors, civil servants, and experts from the private sector. They are engaged on the basis of periodic contracts.

Different types of professional development are organized in the form of theoretical lectures, didactic activities, practical activities, and simulations of the relationships within the ministries and local self-rules as well as in the form of study visits. All participants are obliged to take examination during the training and at its close. The results of the exams are of significance for their future careers. Certificates of attendance are taken into account when the promotion is considered to certain positions that require qualifications acquired during the training.

The Institute also organizes permanent training programmes for high-ranking managerial staff. These programmes are organized in the form of courses and seminars, theoretical and hands-on training. They do not last long, only two or three days, and there are no tests of final evaluation or checks of acquired knowledge at their close.

Italy

Professional development of the civil servants in Italy is performed by the College of State Administration, which was founded in 1957. The college is managed by the executive board consisting of 24 members, who are the representatives of different central administrations.

The training takes place within the scope of three sectors: the Sector for Law and Administration Studies, the Sector for Management and Economics, and the Sector for Historic, Political and Sociological Studies. Lecturers are engaged from the ranks of university professors.

The College is also in charge of providing instruction for novices. Their instruction is performed for the duration of nine months and upon completion the trainees are obliged to pass a test. Depending on the results of the test, they are assigned to adequate working positions in different ministries. The College also provides six-month courses for regional and local administration, which have similar curricula as those for the central administration. In addition to this, an important activity of this institution is providing courses of preparation for the candidates who apply for higher managerial position. Their training lasts for nine months and upon completion each candidate presents his work and sits a written and an oral examination in order to be appointed to a senior managerial position. Besides this, the college offers short courses with narrowly-focused topics at the request of various ministries and in accordance with their requirements.

PROFESSIONAL DEVELOPMENT OF CIVIL SERVANTS IN THE PRACTICE OF THE REPUBLIC OF SERBIA

The segment of the civil servants' professional development as part of the system of human resource management in the Republic of Serbia gives an impression that acquiring knowledge is still connected with the institutions of the educational system – schools, colleges and universities, whereas mastering practical skills required of civil servants is ensured through projects of professional training and development. The civil servants need to be constantly encouraged to master the skills such as: managerial abilities, coordination, cooperation, team work, ethics, orientation toward the citizens, as the users of their services, etc. The mentioned skills are vital to the job positions already held by the civil servants, but they also allow them to qualify for other positions within the state administration organs. [13]

The civil servants professional development in the Republic of Serbia take different forms, such as: courses, workshops, conferences, etc. It is seldom a case that some institutions of higher education are in the function of such training through the realization of their curricula at the first degree (undergraduate) or second degree studies (specialist and master studies).

13 On the significance of civil servants' professional development, see: D. Milovanović, Regulatorna reforma i stručno usavršavanje u javnoj upravi, Pravni život, br.10, Beograd, 2010.

The system of state administration calls for further reinforcement of institutional and personnel capacities for performing the tasks of the civil servants' professional development, which are currently recognized but still rather modest. Namely, it would be good to assign the function of professional development to the organizational unit in charge of human resources, which has a prominent place in the internal organizational structure of the state administration organs. However, an example of bad practice is when the organization of professional development is symbolically assigned to a single government official, which is illustrative of the significance attached to the subject matter. Nor is it a good idea to perform the duties related to the civil servants' professional development only as side duties, alongside other personnel or legal and general duties.

According to the data of the Personnel Management Service[14] related to the civil servants' professional development in the period from 2007 to 2009, statistically observed, the situation looks as presented below:

Thematic Area	2007		2008		2009	
	Number of Courses	Number of Participants	Number of Courses	Number of Participants	Number of Courses	Number of Participants
CONSTITUTIONAL ORDER	/	/	1	15	6	81
THE SYSTEM AND ACTIVITIES OF STATE ADMINISTRATION (normative regulations in the area of state administration, internal structure of state authorities, administrative procedure, methodology of producing regulations)	7	117		369	8	110
PERSONNEL SYSTEM (personnel planning, recruitment, supervision and evaluation of civil servants, planning development of personnel, central personel register)	36	821	52	710	14	158
MODERN MANAGEMENT AND MANAGEMENT IN STATE ADMINISTRATION (government administration, management in administration, stress and discrimination at the workplace)	27	503	28	400	23	236
TRANSPARENCY (public relations, free access to information of public significance, transparency of functioning, corruption)	4	79	12	178	/	/
STATE ADMINISTRATION PROJECTS (drafting projects, project leading, project management, public procurement)	2	57	14	410	29	621
THE SYSTEM OF PUBLIC FINANCE (budgetary financing, financial management and control, public procurement)	41	643	8	230	5	245
TOWARDS THE EUROPEAN UNION (basic courses, twinning training, specialized training)	/	/	1	92	19	278

14 The statistical data are given for courses held in 2007, 2008, and 2009, in accordance with the data available at the Department for Personnel Management.

GENERAL AND COMMON ACTIVITIES WITHIN STATE ADMINISTRATION (the use of pragmatic, stilistic, and ortographic rules in the creasion of acts, office management, the role of information systems in the state administration, e-government, computer litteracy)	13	130	54	677	14	203
TEACHER TRAINING IN STATE ADMINISTRATION (basic training, specialized training)	1	11	6	68	3	42
FOREIGN LANGUAGES	/	/	4	178	4	245
COMBATING CORRUPTION AND TRANSPARENCY OF THE STATE ADMINISTRATION FUNCTIONING (combating corruption, public relations, communiction at work)	/	/	/	/	13	184
COMPUTER LITERACY (basic level, advanced level)	/	/	/	/	21	238
TOTAL	131	2361	201	3327	159	2641

A careful analysis of the data indicates a pyramidal structure of professional development i.e. the courses and seminars were mostly attended by the civil servants from the lower-ranking positions in the hierarchy. In this regard, a question could be asked whether the civil servants in the higher levels of line management need professional development i.e. is it the estimate of the mangers themselves that they are sufficiently competent and that they do not require additional knowledge. Another possibility is that in our circumstances professional development is regarded to be an activity that is not so important and the said persons do not have enough time due to more important tasks.

There is another dilemma related to the civil servants' professional development. Specifically, is it better to organize the training of employees separately, within each of the organs of state administration or is it more appropriate to entrust the civil servants' training exclusively to one institution. Both solutions have their respective advantages and drawbacks. There is an impression that organizing training for general knowledge and skills within a single centre is more economical and it offers possibilities to ensure a higher level of instruction quality. As regards the training for acquiring specific knowledge in certain areas - such as customs, police, revenue collection, etc. - the organization of relevant courses should be entrusted to the state authorities within whose jurisdictions these specific tasks fall. Perhaps the combination of the two models is the best solution. However, regardless of the modalities of organizing the training, it is important to include all the strata of the state administration, i.e. all civil servants regardless of the titles and ranks they have within the hierarchy.

Education, qualification, and development of police officers

The education of personnel for the law enforcement agencies in Serbia has long since been recognized as a need and necessity. In this respect a long way has been travelled since the foundation of the first Police school in Belgrade in 1921, which later became the Central Police School, and the establishment of the School for Officers of the National Militia in Sremska Kamenica in 1946, the School of Internal Administration founded in 1953, through the establishment of the High School of Internal Affairs in Sremska Kamenica in 1967, to the establishing of the College of Internal Affairs in 1972, the Police Academy in 1993, to the Academy of Criminalistic and Police Studies in Belgrade in 2006. [15]

Professional education for police purposes and ensuring the acquiring of the adequate levels of professional qualifications is performed in accordance with special regulation. In keeping with this, within the Ministry of the Interior and - within it - the Sector of finance and human resources, there is a special department for professional education, qualification, development and research. Its task

15 More detailed and comprehensive information on the history and devlopment of police education in Serbia, see the following monographs: Monografija Više škole unutrašnjih poslova, Beograd, 1997; Kriminalističko policijska akademija - 90 godina visokog policijskog obrazovanja u Srbiji, Beograd, 2012.

is to perform activities contributing to achieving desired goals in the area of education and development of the personnel within the police service. In relation to this, there are two very significant institutions under its auspices: 1) the Basic Police Training Centre in Sremska Kamenica and 2) the Belgrade-based Centre of specialist training and development for police.

Professional education for police purposes is also performed at the Academy of Criminalistic and Police Studies. Although this independent institution of higher education is not part of the Ministry of the Interior, it is functionally linked to this system. Nowadays the Academy is in charge of undergraduate, specialist and master studies.

According to the Police Act,[16] professional qualification and development for police purposes includes the acquisition and improvement of knowledge, skills, attitudes, and conducts, i.e. increasing efficiency and effectiveness in the performance of police duties. It is the duty and the right of the minister of the interior to issue acts providing more closely for the following: 1) curricula, procedures and modalities of professional qualification of the novices and taking the qualification exam; 2) the contents, form and modalities of performing professional training and development of police officers and other employees of the Ministry of the Interior; 3) rights, obligations and responsibilities of the trainees at the professional training and development courses; 4) the selection criteria for the candidates attending the training and development courses based on the publicly advertised vacancies; 5) other issues related to professional qualification and development.

The participants of the professional qualification and development courses have certain rights and duties in accordance with the relevant law and bylaws. Their more precise definition is the responsibility of the minister of the interior. However, according to the Police Act, for the duration of the qualification and development courses, the trainees are provided with: accommodation, meals, and other rights in keeping with a special act of the minister of the interior. Apart from the mentioned rights, the trainees have a number of duties. Primarily, it is their duty to remain employed within the Ministry of the Interior for at least three years. If they are not willing to do so, they are obliged to compensate a share of the expenses of the professional training to the Ministry of the Interior.

Professional training and development is performed in accordance with the programmes passed by the minister of the interior. In keeping with the adopted programmes, the director of police makes plans for the realization of specific forms of professional training and development. Upon their adoption and realization, care must be taken about the available financial means in the budget. The given programmes and plans can be realized with the participation of foreign participants, with whom special agreements are signed towards that end.

Apart from the listed forms of training, police officers can take part in other forms of professional qualification and development, both in the country and abroad. It is of little importance whether the curricula in such cases are provided by domestic or foreign institutions. However, even this form of qualification and development is planned and restricted in keeping with the special programmes and plans. [17]

Generally observed, professional development of police employees in the Ministry of the Interior, as compared to the activities of this kind at the level of the entire system of state administration, is at an enviable level. This form of activity at the level of the Ministry of the Interior has a long tradition and has so far given good results. Of course, the reform process that has encompassed the entire system of state administration makes room for further development based on the conclusions drawn from experience and the achieved results. In any event, further steps should be taken towards strengthening institutional and personnel capacities, so that the police officers should be as qualified as possible for the execution of duties and assignments that the Ministry of the Interior is faced with at these hard times of combating organized crime, terrorism, corruption, and other forms of crime.

16 For more detail, see articles: 152-154, Zakona o policiji, Službeni glasnik RS, br. 101/2005; 92/2011.

17 For more detailed information regarding the education, qualification and development of police officers see: Ž. Kulić, D. Vasiljević, Radni odnosi u organima državne uprave, KPA, Beograd, 2009, e-edition, pp. 185-187.

CONCLUSION

A new generation of reforms in the sphere of public administration is spreading worldwide. Most of them are characterized by demands for changing the status, role, and capacity of state administration in response to problems at the beginning of the new millennium. Besides, a new stage of reforms has begun in Serbia related to the process of approaching the standards of the "European Administrative Space." [18]

It is obvious that the transition societies, especially the states of the Western Balkans, are facing specific problems. They primarily include difficulties in the economy and stabilisation of institutions. There are also specific forms of resistance against the implementation of administrative changes, combined with insufficient intellectual capacity engaged in the public administration as result of the brain drain, corruption, organized crime, etc. Such a specific and complex situation opens possibilities for cooperation and exchange of relevant experiences in problem solving. However, any cooperation should be preceded by an objective analysis of domestic circumstances, constant monitoring of trends and using knowledge on the world's best practices. It is towards this end that we need to make an accurate analysis of the most important elements of the existing system and its legal frameworks, as well as a diagnosis of efficiency of our investments (in terms of human, financial, managerial, and technical resources) in the public administration. New solutions are inevitable. Extensive knowledge, innovative educational curricula and methodology are at the core of these changes. The process of continuous training and development of personnel is at the base of all activities. [19]

A new vision of the development of society calls for courage and risk-taking, and a very high level of professionalism on the part of the administration, along with re-education and shaping of new skills and abilities. A different role of the state with a smaller apparatus, but with professionally strengthened managerial capacities and professionalism has become an imperative.

It is important to make a proper decision on the manner in which available resources are to be used in order to improve the state administration which, otherwise, is almost everywhere in the world subject to criticism and restrictions. The well-known quotation that one should "do more with less" should be carefully interpreted bearing in mind the changed role of the modern state brought about by the crisis, among other things.

Transition countries are very sensitive to increased uncertainty, especially in case of unforeseen large-scale social events. Developed countries are able to cope with hyper-crises, hyper-competition and chaotic environment. Such countries may even experiment with unusual solutions.

We need well-trained civil servants who will constantly expand knowledge and a good number of polyvalent experts, as well as capable managers in the state administration with high ethical standards. These civil servants – specialists and managers - present good protection against possible chaotic measures of politics and decisions on the implementation of such measures. [20]

Nowadays, the systemic development of information technologies is a prerequisite for survival and progress of any kind. This new medium is sometimes referred to as 'the Internet space." It creates a new environment in which the Internet users, regardless of their nationality, territory, or motives, are given means and powers to directly influence the state and public administration and bring about changes. Stepped-up development of e-government is also of great importance, as well as the possibility for complete information interconnectedness of the administration with the citizens. A new ambience is being created. Therefore special attention must be given to the education of civil servants in the use of information technologies.

The existing international environment has become significantly more complex than before. Traditional models of organization and functioning of the state administration in developed societies, let alone the countries in transition or developing countries, do not any longer allow timeliness or the quality of response to the challenges of present day. We have to face new problems that induce

18 For a more extensive and detailed elaboration on the principles of good quality administration in the European Union law see: A. Rabrenović, Načela kvalitetne uprave u pravu Evropske unije, Javna uprava, br.1/2002.

19 More detail on these isues in: D. Milovanović, Upravljanje javnoprivatnim partnerstvom, Pravni život, br.10, Beograd, 2010.

20 A clearly defined status of civil servants is of great importance for reinforcing democratic capacities of the state. See in: B. Lubarda, Pravni položaj državnih službenika, Pravni život, br.11, Beograd, 2006.

complexities and changes of large scales. Some warn that this is the dawn of the age of irrationality. Therefore we need cooperation, involvement, and harmonization with the European standards.

The results of efforts made towards the reform of the administration achieved in the countries of the European Union are based on great experience and practice. The solutions that have proved to be good can provide encouragement and inspiration. Still, it should be borne in mind that advice given by foreign experts can sometimes be maladjusted to our situation. The best assistance is the one that carefully assesses domestic needs, and then participates in indentifying solutions based on understanding the domestic social, political, and professional environment. This process demands, among other things, customized programmes for the professional development of the civil servants in order to ensure "true partnership." There is a need for a customized system of training for the entire professional and managerial structure of the administration. The motivation for the involvement of civil servants should also be ensured in the form of a system of promotion, money and other incentives.

The fatigue caused by the reform has to be overcome. This can be achieved though economic progress and changes in the status and occupation of a civil servant. The development process mostly ensures this. The age of the rule of knowledge should finally begin in the state administration. This rule is based on individual willingness and ambition but also on a common effort and a programme of development. Global experiences show that investment in knowledge is returned multiplied. [21]

In our conditions, it is necessary to arrange institutional cooperation in this area with more quality, i.e. to regulate the relationship between the Ministry which is in charge of state administration duties and the Human Resources Managing Department as regards professional development. It is then necessity to legally and more precisely regulate the area of professional development by amending the Act on Civil Servants and adopting bylaws that would provide more detail on the area of professional development of civil servants.

In order to increase the quality and efficiency of the civil servants' professional development in the ensuing period, it would be good to adopt some of the suggestions, recommendation, and guidelines:

1) Increasing strive towards a systematic and not partial approach to professional development;
2) Training curricula should be based on the actual needs of the given job or the authority;
3) Decisions should contribute to actually increasing professional competences and mastering new skills;
4) The curricula of specific professional development courses should be based on special strategies that are based on the problems and challenges in the functioning of the given organs of administration;
5) A detailed analysis should be made at the level of each organ of administration focusing on changes in the scope of its activities that, in turn, call for specific professional training of the civil servants;
6) The civil servants should share responsibility for their professional development by identifying the need together with their immediate supervisors and initiating their professional development in this direction;
7) Organizational units for personnel in the state administration organs should take a more active view regarding the issues of contents, methods, and quality of programmes of certain forms of professional development;
8) The civil servants' professional development should be supported by the official in charge of managing the organ of administration, which implies strengthening their awareness about the significance of professional development, both for the officials themselves and for the authority they manage.

In order to further improve the system of civil servants' professional development, it is necessary to follow the example of some European Union member states and establish an institute or an acad-

21 Japan, as a country which spends four percent of its budget on in-service training of employees, has noted a much greater multiplication in return.

emy of public administration for the purpose of developing and further promotion of the process of the civil servants' professional development.

There is no doubt that there has been significant improvement in the system of professional development of civil servants in the Republic of Serbia in recent years. However, a proactive attitude should be taken in future as regards this issue, which is important for the tendency to make the state administration more professional. A systemic approach is needed to the professional development of civil servants that would, along with the Strategy, be recognized among strategic documents in this field.

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ADMINISTRATIVE DISPUTE IN TAX MATTERS[1]

Full Professor **Mirko Kulić**, PhD
University Business Academy, Novi Sad
Dean, Full Professor **Goran Milošević**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: The paper points to the need for respecting the principle of legality when designing and implementing the tax system and tax policy. The Law on Tax Procedure and Tax Administration provides for court control of tax procedure, which consists of the delegation of powers to the Administrative Court to resolve certain disputes arising in the tax procedure. The provision of the Article 140 Paragraph 3 of this Law provides that against the final tax administrative decision (resolution and conclusion), administrative dispute can be initiated, unless otherwise provided for by the law. Administrative dispute in tax matters resolves the contentious situations that arise from the tax-legal relation. The contentious legal situations in the tax-legal relation arise when the tax authority (Tax Administration or the competent tax authority of the local government), which represents one side in the tax-legal relation, passes such tax administrative act that is against the law.

Keywords: tax, administrative dispute, tax system, tax authority, tax-legal relation, administrative court.

SUBJECT OF ADMINISTRATIVE DISPUTE IN TAX MATTERS

Subject of administrative dispute in tax matters is **tax administrative act**. Tax administrative act is an act of the tax authority by which it resolves individual rights and obligations of tax debtors in tax-legal relations. The tax administrative acts include administrative tax decision and conclusion of the tax authority. Tax administrative act against which an administrative dispute may be initiated, i.e. which may be the subject of administrative dispute, must be final in the tax procedure. This means that the administrative dispute may be initiated against the tax administration act, which was passed as a second-instance act. This means that a person that may file an appeal against the tax administration act, and did not do so, or did not do it in time, has no right to challenge that act in administrative dispute. Thus, filing an appeal is a necessary procedural precondition for the initiation of an administrative dispute. Since administrative action follows second-instance tax procedure, administrative dispute cannot be initiated before the exhaustion of the right to appeal.

Since any tax decision adopted in the first-instance tax procedure may be appealed, it means that in all cases where an authorized person has used the right to appeal, that person may file an administrative dispute against the second-instance tax decision adopted for that appeal.[2] However, when it comes to the decisions that are made in the tax procedure, the situation is somewhat different. Against the decision issued in tax procedure, appeal is allowed, unless otherwise provided for by law. This means that if against a decision an appeal is not excluded, and the authorized person exercises the right of appeal, that person may initiate an administrative dispute against the decision passed by the second-instance authority. However, the Law on Tax Procedure and Tax Administration sets out the cases in which the right to appeal against the conclusions is not permitted. Thus, for example, appeal against following conclusion is not allowed: 1) on request for an extension of time for filing a tax return (Article 39, Paragraph 4); 2) on request for return to the status quo ante (Article 53, Paragraph 6); 3) on objection to valuation of inventoried items (Article 100, Paragraph 7); 4) on appeal on order for field control (Article 124, Paragraph 6); 5) on measure of temporary sealing of business or storage premises (Article 126, Paragraph 4) and 6) on request for delay of execution of appealed tax decision (Article 147, Paragraph 3). When appeal is not allowed against a conclusion, the parties

1 This paper is the result of carrying out scientific research project entitled *Development of Institutional Capacities, Standards and Procedures for Fighting Organized Crime and Terrorism in the Conditions of International Integration*. The Project is funded by the Ministry of Education and Science of the Republic of Serbia, grant No. 179045.

2 Г. Милошевић, Теорија и пракса финансијскогправа, Београд, 2011, p. 265.

and other persons who have legal interest, may challenge this conclusion by an appeal against a tax decision issued in the tax procedure in which the conclusion was adopted.[3] Having this in mind, it can be said that against the conclusion adopted in the tax procedure, against which no appeal is allowed, administrative dispute cannot be led. However, it can be indirectly discussed in administrative dispute against second-instance tax decision rendered on appeal against first-instance tax decision, by which conclusion, against which appeal was not allowed, was refuted.

Administrative dispute may be initiated in the case of ***administrative silence***, that is, when the competent second-instance tax authority did not adopt the appropriate second-instance tax administrative act on the appeal of a party, under the conditions provided for by law. In other words, the appeal in the administrative dispute may be filed as if the appeal was rejected, and when the plaintiff stresses that a decision upon his/her appeal was not reached within the regulated term.

From the principle that subject of administrative dispute in tax matters can only be tax administrative act, i.e. act which decides on any right or obligation of a tax debtor, it appears that the subject of administrative dispute cannot be other tax acts, such as: order for tax control or report on tax control.

In an administrative dispute, one may seek **return of seized items and compensation of damage** caused to the plaintiff during the execution of the tax administrative act that is being challenged.

PARTICIPANTS IN ADMINISTRATIVE DISPUTE

In administrative dispute in tax matters participate: a) court; b) parties and c) other participants.

Administrative dispute is resolved by **the Administrative Court**, as a court of special jurisdiction, which is established for the territory of the Republic of Serbia, based in Belgrade. This Court also performs other duties specified by law, and may have departments outside the headquarters, in accordance with the law, in which it permanently judges and undertakes other judicial actions. The Administrative Court decides in a panel of three judges, unless the law provides otherwise.

Court directly superior to the Administrative Court is the **Supreme Court of Cassation**, which is the highest court in the Republic of Serbia. In connection with the administrative dispute, the Supreme Court of Cassation: 1) decides on the request for reconsideration of the court decision, as an extraordinary legal mean against the decision of the Administrative Court, in the panel of three judges; 2) decides on the conflict of jurisdiction between the courts; 3) determines general legal positions to ensure uniform court application of law, and 4) analyses application of laws and other regulations and the work of the Administrative Court. Decisions of the Supreme Court of Cassation relevant to the practice of the Administrative Court and all general legal opinions are published in a special collection. The Supreme Court of Cassation, on its web site, publishes all decisions it adopts on the requests for reconsideration of the court decisions, filed against the decision of the Administrative Court.

The parties in the administrative dispute are: a) plaintiff b) defendant, and c) interested party**.**

In order to initiate an administrative dispute, it is necessary to fulfil certain requirements in terms of features of the prosecutor. A person authorized to initiate an administrative dispute must have an active procedural ID. An administrative dispute may be initiated only by authorized persons, whose circle is limited.[4] These persons must have an interest to annul the disputed tax administrative act. **The plaintiff** may be *tax debtor*, that is, a natural or legal person, if he/she believes that a tax administrative act violated any of his/her rights or lawful interests. However, if the tax debtor through illegal tax administrative act has obtained any benefit to which he/she has no right by the law, there is no doubt that in this case there is an overriding public interest to repeal such an illegal act. Since in this case the tax debtor who has acquired some benefit through a disputed act has no interest in favour of the repeal of this act, the legislator has authorized certain state agencies to initiate administrative dispute against the tax administration act, which violates the law in favour of the tax debtor. In this sense, the competent *public prosecutor* is entitled to request initiation of an

3 Article 212 Paragraph 3 of the Law on General Administrative Procedure ("Official Gazette of the Federal Republic of Yugoslavia", Nos. 33/97 and 31/01).

4 Милошевић Г., Кулић М., *„Економска начела опорезивања"* Култура полиса – *посебно издање* број 1 – Култура безбедности у 21 веку, Нови Сад - Београд, 2012, p. 539.

administrative dispute, if the tax administrative act violates the law to the detriment of the public interest. An administrative dispute may be also initiated by the Public Attorney's Office – if the administrative act violated the property rights and interests of the Republic of Serbia, autonomous province or local self-government.

The defendant in administrative dispute is the second-instance authority whose tax administrative act is being challenged, that is, the authority, which upon a party's appeal did not pass an administrative act. The Law on Tax Procedure and Tax Administration determines that a Minister or a person authorized by him/her decides upon appeals against first-instance administrative acts adopted in the tax procedure.[5] The same law provides that the Tax Administration: 1) decides on appeals against decisions adopted in the tax procedure by the organizational unit of the Tax Administration and 2) decides on appeals against decisions adopted in the tax procedure by the competent bodies of local self-government.[6] As the Tax Administration is within the Ministry of Finance of the Republic of Serbia, the defendant is the Ministry of Finance – the Tax Administration.

Interested party is a person to whom the annulment of the disputed tax administration act would directly cause damage.

Other participants in the administrative dispute may be representatives of the parties, witnesses, experts, interpreters, etc.

INSTITUTION OF ADMINISTRATIVE DISPUTE

Administrative dispute is initiated by a **complaint**. Complaint must be filed within 30 days from the date of service of the tax administration act to the party filing. This deadline applies to the authority authorized to file a complaint, if the administrative act is served. If the authority empowered to file complaint, or interested party was not served with administrative act, authority or interested party may file a complaint within 60 days from the date of service of the administrative act to the party.

The legislator has prescribed a deadline for submitting complaint because of *administrative silence*. Upon a complaint, second-instance tax authority must decide within 60 days from the date of submission of the complaint[7]. If the second-instance authority, within a specific time period determined by law, has not adopted a decision on the party's complaint against the first-instance decision, and fails to do so within a further period of seven days after a subsequent request of the party filed to the second-instance authority, the party after the deadline can file an complaint for failure to adopt the decision.

An appeal shall be **submitted** to the Administrative Court, either directly or by mail. Complaint may be also filed in the court record. The date of delivery to the post office or the date a complaint was filed on the court record, shall be deemed date of submission to the court. If a complaint was not submitted to the competent court within the prescribed time limit, but other court or other authority, and arrives at the court after the expiry of the deadline for filing an complaint, it shall be considered as timely filed, if its submission to the other court or other authority can be attributed to ignorance or apparent mistake of applicant. For military personnel who are in the Army of Serbia, the date of submission of a complaint to a military unit or military institution is considered as the date of delivery to the court. This also applies to civilians employed by the Army of Serbia who are serving in military units or military institutions in places where there is no regular postal service.

A party may also submit a complaint or other submission to court in the form of **electronic document**, in accordance with the law. Submission of a complaint in the form of an electronic document is considered a direct submission to court. Court may deliver acts to a party acts in the form of electronic documents, with the previous consent of the party. The treatment of electronic documents shall be in accordance with the law regulating electronic documents. If an electronic

5 Article 165 Paragraph 1 of the Law on Tax Procedure and Tax Administration, *Nos. 80/2002, 84/2002, 23/2003, 70/2003, 55/2004, 61/2005, 85/2005, 62/2006, 61/2007, 20/2009, 72/2009, 53/2010.*

6 Article 160 Paragraph 1 Point 7 and 7a of the Law on tax Procedure and Tax Administration, *Nos. 80/2002, 84/2002, 23/2003, 70/2003, 55/2004, 61/2005, 85/2005, 62/2006, 61/2007, 20/2009, 72/2009, 53/2010.*

7 Article 147 Paragraph 4 of the Law on Tax Procedure and Tax Administration, *Nos. 80/2002, 84/2002, 23/2003, 70/2003, 55/2004, 61/2005, 85/2005, 62/2006, 61/2007, 20/2009, 72/2009, 53/2010.*

document that was submitted to the court cannot be read or does not meet the technical requirements, the court shall promptly notify the applicant, inviting him/her to edit the submission within the given deadline and present the consequences of failure to do so. The way,

technical requirements of submission and determination of time of submission and delivery of acts in the form of electronic document, as well as other issues related to the handling of electronic documents, are regulated by the Court Rules, adopted by the Minister of Justice, with the prior opinion of the President of the Supreme Court of Cassation. If the law states that the act should be signed by a person, it is considered that this condition is fulfilled for an act in the form of an electronic document when at the end of an electronic document is the name and surname of this person and when it is signed with qualified electronic signature of that person.

A complaint must include: 1) name and surname, address and place of residence or the name and address of the plaintiff; 2) designation of an administrative act against which the complaint is filed; 3) the reasons for which the complaint is filed; 4) the proposal of the direction and scope of annulment of an administrative act, and 5) the signature of the plaintiff. With the complaint, an original or a copy of the act against which the complaint is filed must be submitted. With a complaint filed for *administrative silence*, a copy of the complaint must be submitted, as well as a copy of a request on subsequent claim of a party to reach a decision within a further period of seven days and proof of delivery of these submissions to the competent authority. If the complaint is filed through an attorney, it must be accompanied by the original power of the attorney. If a complaint is filed for return of property or compensation, the complaint must specify particular requirements in terms of items or the level of damage. With a complaint, a copy of the complaint and attachments to the complaint for defendant and any interested party, if any, must be submitted. The complaint may contain a reference to the facts upon which the plaintiff bases its claim in the complaint.

A filed complaint **does not delay** the enforcement of the tax administrative act against which it was filed. However, at the request of the plaintiff, the court may postpone the execution of the final tax administrative act which was decided on merits in tax matters, until adoption of court decision, if the execution would cause damage to plaintiff, which would be difficult to compensate, and postponing is not against the public interest, nor would cause considerable or irreparable damage to the opposing party, or interested party. Exceptionally, a party in tax procedure may request from the court to delay enforcement of the tax administration act: 1) before filing a complaint – in an emergency, and 2) when appeal is filed, and the procedure on appeal has not been concluded, because in the tax matter appeal has no suspensive effect. Upon request for delay of enforcement, the court renders a *decision*, within five days of receipt of the request.

REASONS FOR WHICH AN ADMINISTRATIVE DISPUTE CAN BE INITIATED

Reasons for which an administrative dispute can be initiated are related to legality of a tax administrative act. These reasons may be: a) formal legal b) substantive legal.

Formal legal grounds for an administrative dispute may be: 1) the tax administrative act was issued by incompetent authority; 2) in the procedure of adoption of tax administrative act, it was not acted according to the rules of proceedings (violation of the provisions of the Law on General Administrative Procedure or the Law on Tax Procedure and Tax Administration); 3) mistake in determining facts, which may be reflected in: (1) incompletely determined facts, (2) incorrectly determined facts, and (3) performing incorrect conclusion from the established facts in terms of factual situation.

Substantive legal grounds for an administrative dispute may be: 1) failure to apply the applicable substantive tax regulation for addressing certain tax matters, or in a concrete case complete failure to apply tax law, regulation or general act, and 2) a misinterpretation of content and meaning of the applicable substantive tax regulation, that is, in a concrete case, failure to correctly apply the tax law, other regulation or general act. In tax administrative act, which was passed by *discretion*, substantive legal illegality has two specific additional components, namely: (1) tax authority's violation of the limit of legal authority in passing tax administrative act, and (2) failure to pass the tax

administration act in accordance with the objective for which the authorization was given. In other words, grounds for instituting administrative dispute also exists when the tax authority is given the power to decide on discretion, that is, based on discretionary power, and it passes a tax administrative act that is not within the authority and in accordance with the objective for which this authority was given. So, for example, the tax authority is given discretionary power in the provision of the Article 131 of the Law on Tax Procedure and Tax Administration, which gave him/her the right to, during tax control, pronounce a measure of temporary ban on business activities. In cases where the tax authority is authorized to act on discretionary power, he/she is obliged to act in accordance with the purpose of these powers and the law[8].

A complaint may be also filed: 1) **to establish** that the defendant repeated his/her previous tax administrative act that has been already cancelled by judgment, and 2) in order to verify irregularities of enacted tax administrative act which has no legal effect.

PROCEDURE OF RESOLVING ADMINISTRATIVE DISPUTE

Administrative dispute resolution procedure can be divided into two main phases: a) the preliminary proceedings and b) establishing facts. Each phase has specific characteristics.

Preliminary Proceedings

The preliminary proceedings is characterized by the fact that the court in this proceeding does not discuss the merits of the complaint, that is, it does not resolve disputed legal issues, but rejects a complaint on formal grounds, i.e. annuls the challenged tax administrative act if it contains such important deficiencies that prevent the assessment of the legality of the act in the material sense. Accordingly, the court in the preliminary proceedings only examines and verifies whether the conditions were met for the institution and conduct of administrative dispute.

Preliminary proceedings can be instituted before: a) single judge and b) court council.

Single judge first examines the validity of the complaint, and he/she may, if complaint contains deficiencies: 1) to invite the plaintiff to correct the deficiencies within the given time period, or 2) to dismiss the complaint.

If single judge determines that the complaint is incomplete or unclear, he/she calls upon the plaintiff to **correct the deficiencies** within the prescribed deadline and points to him/her the consequences of failing to comply with the request of the court.

A single judge will adopt a decision to ***dismiss the complaint*** if he/she finds: 1) that the complaint was messy, and the plaintiff, within the deadline, did not eliminate the deficiencies in the complaint that prevent the operation of the court, and single judge did not find that the disputed tax administrative act was dismissed; 2) that the complaint was filed unduly or prematurely; 3) that the act disputed by the complaint did not constitute a tax administrative act, whose legality is decided in administrative dispute; 4) that the complaint filed for administrative silence was not accompanied by all evidence; 5) that tax administrative act disputed by the complaint obviously did not affect the right of the plaintiff or his/her legally determined interest; 6) that after filing a complaint, disputed tax administrative act was dismissed upon the complaint by the other party; 7) that against the tax administrative act disputed by the complaint, appeal was not at all or not timely filed, or the appellant withdrew the appeal in the second-instance procedure, and 8) that there is already a final court decision adopted in the administrative dispute on the same matter.

If the court does not dismiss the complaint for these mentioned reasons, and finds that the disputed tax administrative act contains such deficiencies in the form and constituent parts that clearly make the act illegal, it can **annul** the act even without providing respond to the complaint. However, the annulment of the tax administrative act in preliminary proceedings is permitted only with prior call to the defendant to give a statement about it. If the defendant in this case annuls or amends the

8 Article 4 Paragraph 2 of the Law on Tax Procedure and Tax Administration, *Nos. 80/2002, 84/2002, 23/2003, 70/2003, 55/2004, 61/2005, 85/2005, 62/2006, 61/2007, 20/2009, 72/2009, 53/2010.*

disputed tax administrative act, a single judge shall, after obtaining the plaintiff's statement that he/she is content with subsequently adopted tax decision, make a decision on the **suspension of the proceedings**.

If a single judge fails to dismiss a complaint for these reasons, it will be done by the **court council**. Against the decision of a single judge to dismiss the complaint, or suspend proceedings, plaintiff has the right to file an ***objection*** within eight days of decision's receipt. The objection shall be decided upon by a special court council, consisting of three judges, after the oral public hearing, if the filer of objection requested a hearing. Court council may decide to: 1) dismiss objection, 2) reject objection, or 3) accept objection. Court council *dismisses* objection if it was filed untimely or by unauthorized person. If court council *rejects* the objection, the decision to dismiss complaint becomes final. If court council *accepts* the objection, it will revoke decision on dismissal of complaint, and proceedings before the court will be resumed, and the court proceedings will resume.

If the defendant during court proceedings passes other tax administrative act which alters or cancels the tax administrative act against which the administrative dispute was initiated, and if in the case of administrative silence, subsequently passes second-instance tax administrative act, that authority shall, besides the plaintiff, also inform the court. In this case, the court will call the plaintiff within 15 days of receiving invitation to submit a written statement whether he/she is satisfied with the subsequently enacted tax administrative act or not, that is, whether he/she will extend the complaint to the new tax administrative act. If the plaintiff timely submits a written statement to the court that he/she is satisfied with the subsequently enacted tax administrative act or fails to make a statement within the time specified, the court will make a decision on the suspension of the proceedings. If the plaintiff states that he/she is not satisfied with the new tax administrative act, the court will continue the proceedings.

If the court does not dismiss the complaint or annul the tax administrative act, that is, does not declare it as null and void – a copy of the complaint with attachments must be submitted **in response to the defendant** and interested parties, if any. This answer is given within the period set by the court in each case, but the court cannot determine a period longer than 30 days from receipt of the complaint to respond. In this period, the defendant must submit to the court all the documents related to the subject of administrative dispute and respond to the allegations of the complaint. If the defendant after the second request does not submit the case file within eight days, or if he/she states that it cannot be served, the court may resolve the dispute without the documents, where it will establish the factual state at the hearing.

At the request of the court, bodies of autonomous provinces and local self-governments, and other public authorities must submit **the documents** available to them by the deadline set by the court. The public authority is obliged to specify which documents or parts of documents are confidential in accordance with a special law, so that parties could not have access to them. If the public authority upon the repeated request of the court in the second set deadline, fails to submit the required documents, the court will call the head of that body to give notice of the reasons for failure to comply with a court order.

Plaintiff may **withdraw submitted complaint** until the decision is made. In the case of the withdrawal of the complaint, a single judge or a court council adopts decision *on suspension of the proceedings*. Against the decision of a single judge to suspend the proceedings, the complainant has the right to appeal within eight days of receipt. Court council decides on this appeal.

Establishing Facts

In an administrative dispute, the court resolves based on the established facts on the held **oral public hearing**. There is a possibility of **exceptions** to this rule. Thus, the court may resolve a dispute without holding a hearing, only if the subject matter is such that apparently does not require direct hearing of the parties and special establishing of factual state, or if the parties specifically agree to that. This possibility is provided for quick implementation of the court procedure in simple administrative disputes, and so that the court procedure would complete within a reasonable time, but not at the expense of legality, the truth and the rights of the parties. The court must specifically state the reasons why a hearing was not held.

Court council will **always** hold a hearing: 1) because of the complexity of the dispute; 2) for a better resolving of the matter; and 3) if the defendant after another request does not submit the case file within eight days, or if he/she states that it cannot be delivered; 4) if the tax procedure involved two or more parties with opposing interests, and 5) if the court determines the facts for resolving in the full jurisdiction.

Oral public hearing is **public**. However, there is a possibility of **exception** from the principle of the public hearing. In this sense, the court council may exclude the public for the whole hearing or for a specific part of hearing: 1) for reasons of protecting the interests of national security; 2) for reasons of public order and morality; 3) to protect the interests of minors, or 4) to protect the privacy of the parties in the proceedings. The court decides on the exclusion of the public with a decision that must be substantiated and publicly announced.

The chairman of the court council sets the date of the hearing and invites parties and all interested parties to it, if any. The hearing may be postponed only for important reasons, which is decided by the court council. Hearing is presided by the chairman of the court council. The hearing **record** is kept in which only the essential facts and circumstances are included. The record of the held hearing shall be signed by the chairman of the court council and recording secretary.

The absence of the party invited to a hearing does not delay it. The absence of parties from a hearing cannot be considered as if they have dropped from their requests, but their submissions will be read. If both the plaintiff and the defendant don't come to a hearing, and the hearing is not postponed, the court will discuss the dispute without the presence of the parties.

On a hearing, the first to speak is a member of the court council who is **rapporteur**. The rapporteur presents the facts and the essence of the dispute, not giving his/her opinion. Chairman of the court gives word to the plaintiff, and then to the defendant and interested parties, ensuring that their statements only apply to issues and circumstances relevant to the resolution of matter. The court at the hearing decides which evidence will be presented in order to determine the facts.

COURT RESOLUTIONS IN ADMINISTRATIVE DISPUTES

In administrative dispute, the court is empowered to make two kinds of resolutions: a) the ruling and b) the decision.

The court resolves the dispute with a **ruling**. This ruling can accept or dismiss a complaint as unfounded. Court delivers the ruling by majority vote. On voting, a separate record signed by all members of the court council and recording secretary is kept. The deliberations and voting are done without the presence of the parties.

The legality of the disputed tax administrative act, the court **examines within the limits of requests** from the complaint, but is not restricted by reasons of the complaint. The court monitors the nullity of the tax administrative act ex officio.

In an administrative dispute, decision can be made: a) with limited jurisdiction, b) with full jurisdiction and c) because of the administrative silence. Limited jurisdiction dispute and the full jurisdiction dispute differ according to the nature and scope of judicial powers in administrative dispute.

a) **The dispute of limited jurisdiction** is such administrative dispute in which the court does not engage in resolving tax matters, but only solves the court matters, i.e. subject matter of administrative dispute. In a dispute of limited jurisdiction, the following types of decisions can be made: 1) the annulment of the disputed tax administrative act and return of the case to the authorized body for new decision; 2) decision on the determination of illegality of tax administrative act without legal effect; 3) decision on establishing that the defendant has reiterated his previous tax administrative act that has already been dismissed by the court as illegal and 4), decision on pronouncing tax decision null and void. If the complaint is accepted, the court adopts the decision to ***annul*** the disputed tax administrative act in whole or in part, and ***returns*** the case to the authorized second-instance tax authority for reconsideration, unless in this matter a new act is not required. If the complaint is accepted, and its claim is to establish the *illegality of the act without legal effect*, or the claim consists only in establishing that the ***defendant has reiterated his/her previous*** tax administrative

act that has already been dismissed before the court - the court in the limits the decision to sought establishing. If the court finds that the disputed tax administrative act is null and void, it shall adopt determinative, that is, declarative decision which ***pronounces that act null and void***.

b) **A dispute of full jurisdiction** is such administrative act in which the court, under legal conditions, is authorized to discuss not only the court but also the tax matter.[9] The decision of the court in a dispute of full jurisdiction fully replaces the tax administrative act which was dismissed upon complaint. Full jurisdiction, that is, resolving the tax matter by the court is provided for: 1) when the nature of matters allows it and if the factual state provides a reliable basis for it; 2) if the plaintiff requested that the court in its decision resolve tax matter; 3) when dismissing the disputed tax administrative act and new tax procedure before the competent authority would cause damage for the plaintiff that would be difficult to compensate, and the court itself established the factual state and 4) when the tax authority fails to make a final court decision.

When it finds that the disputed tax administrative act should be dismissed, the court will resolve the tax matter with decision, if the ***nature of matter*** allows it and if the ***established facts***, whether they were from the tax procedure or the ones the court established itself, provides a reliable basis for it. This is the power of court, and not its obligation, to resolve tax matters. Such decision replaces the dismissed administrative act. It is specifically forbidden to lead a dispute of full jurisdiction when a subject of the administrative dispute is tax administrative act was passed by discretion. So, for example, the Administrative Court cannot resolve a tax matter if the subject of administrative dispute is a decision by which, during tax control, based on the Article 131 of the Law on Tax Procedure and Tax Administration, a measure of temporary ban of activities is imposed. In that case, the court may, if it finds that the tax decision is illegal, only dismiss the tax decision and return the case to the second-instance tax authority for reconsideration.

If the ***plaintiff requested*** that the court in its decision resolve tax matter, the court has the authority to resolve the tax matter. However, if the court rejects the request of plaintiff, it is obliged to state the reasons for which the request was not accepted.

In cases where the dismiss of the disputed tax administrative act and new procedure before the competent authority ***would cause damage for the plaintiff*** that would be difficult to compensate, and the court itself established factual state, it is obliged to decide in the dispute of full jurisdiction, unless the subject of administrative dispute is tax administrative act passed by discretion.

When tax authority ***does not enforce a final court decision***, whether actively (passes an act in contravention to the decision), whether passively (does not adopt any act contrary to its obligations to do that), the Administrative Court is obliged instead of tax authority settle the tax matter, unless the very nature of matter does not allows it, or the subject of administrative dispute is tax administrative act passed by discretion.

c) In administrative dispute, because of the **administrative silence**, two kinds of decisions can be adopted, namely: 1) decision that accepts the complaint and orders the tax authority to adopt a second-instance tax ruling, and 2) decision, which directly solves the tax matter.

When a complaint was filed because of the administrative silence, and the court finds that it was unfounded, the decision will ***accept the complaint and order the competent tax authority*** to adopt the second-instance tax ruling.

When a complaint was filed because of the administrative silence, the dispute can be also resolved in full jurisdiction. Namely, if the court has the necessary facts, and the nature of the matter allows it, it may, in its decision, ***directly resolve an administrative matter***.

The court may also decide on **litigation matters** in administrative dispute. With a decision with which the disputed tax administrative act is dismissed, or pronounced null and void, the court may also decide on the plaintiff's request for the return of items, that is, compensation of damage, if the established facts provide a reliable basis for it. Otherwise, it will direct the plaintiff to achieve his/her request in a litigation procedure before the authorized court.

The court will, after the hearing, immediately **adopt and announce the decision** together with the most important reasons. In complex cases, the court may reach a decision within fifteen days of the conclusion of the hearing. If after completion of the hearing the court cannot make a decision

9 М. Кулић, Г. Милошевић, Пореско право – теорија и пракса, Београд, 2011, p. 344.

that is, a ruling, because it first needs to establish a facts for whose discussion another oral hearing is not required, the court will make a decision without a hearing, not later than eight days after that fact is established .

A decision **contains**: 1) the designation of the court; 2) the name and surname of the chairman of the court council and recording secretary; 3) names of the parties and their attorneys; 4) the subject of dispute; 5) the day when the decision was adopted and pronounced, 6) wording; 7) rationale and 8) notice on legal remedy. Wording of decision must be separate from the rationale. The original of a decision must be signed by the chairman of the court council and recording secretary. The decision is served on parties as certified transcript.

With the court **ruling,** the procedure is terminated without merits, that is, the dispute is terminated without a ruling on the legality of the disputed tax administrative act. The ruling is adopted: 1) when dismissing a complaint; 2) when terminating the procedure, and 3) when deciding on the appeal against the ruling of a single judge to dismiss the complaint, or terminate the procedure. However, there is also the possibility of adopting a court ruling, which with merits decides on the tax matter. The court adopts such ruling in the case of administrative silence in executing final court decision (which will be discussed later, when we deal with execution of the decision rendered in administrative dispute).

The provisions of the Law on Administrative Disputes, about the adoption and pronouncement of decision, as well as the content and the component parts of the decision, are applied in adoption of court rulings.

LEGAL REMEDIES IN ADMINISTRATIVE DISPUTE

Against the decision adopted in administrative dispute, appeal cannot be filed. Accordingly, administrative dispute is always first-instance. However, in an administrative dispute, extraordinary remedies may be used, such as: a) request for review of a court decision, and b) a reopening of procedure.

Request for a Review of a Court Decision

Against a final decision of the Administrative Court, a party and the competent public prosecutor may file a request for a review of court decision to the Supreme Court of Cassation, in cases where a court decided in full jurisdiction. The request may be filed for violation of law, other regulation or general act or violation of the rules of procedure that could have affected the resolution of matter.

Request for a review of a court decision is submitted to the Supreme Court of Cassation. When the party is a natural person, the request is submitted through attorney. The request can be submitted directly or by mail. Submission of a request in the form of an electronic document is considered direct submission to the court. The date of submission of the request by registered mail shall be deemed date of submission to the court.

The request is filed to the Supreme Court of Cassation within 30 days after serving the party, that is, authorized public prosecutor the decision of the court against which the request is filed. If the authorized public prosecutor was not served with the court's decision, he/she may submit a request within 60 days of the date of serving the decision of the court to the party it was served.

A request for a review of a court decision **contains**: 1) the designation of the court decision whose review is proposed; 2) the designation of the person that submitted a request, and 3) the reasons and the extent to which the review is proposed.

The Supreme Court of Cassation shall adopt a **ruling to dismiss** the request if: 1) it is incomplete; 2) it is incomprehensible, 3) it is unlawful; 4) it was submitted untimely, or 5) if it was filed by an unauthorized person. If the Supreme Court of Cassation dismisses the request, it will deliver it to the opposing party in administrative dispute, which may, within a period set by the court, file a **response to the request**. The court against whose decision the request was submitted and the defendant are obliged, without delay, and no later than 30 days, to submit to the Supreme Court of Cassation, at its request, all documents.

The Supreme Court of Cassation decides on the request for a review of a court decision, that is, without holding an oral hearing, and examines the dismissed decision only within limits of the request. The Supreme Court of Cassation can adopt a **decision**: a) to dismiss or b) to accept the request as founded.

With a decision to *accept* the request, the Supreme Cassation Court may: 1) terminate, or 2) amend the court decision against which the request was submitted. If the Supreme Court of Cassation dismisses the court decision, it returns the case back to the Administrative Court, and that court is obliged to perform all procedural actions and discuss the issues given in the decision.

Reopening of Procedure

The procedure that was completed with a final decision or ruling of the court shall be **reopened upon the complaint of the plaintiff**: 1) if the party learns of new facts, or finds or acquire the ability to use new evidence based on which the dispute would be resolved in favour of him/her if those facts and evidence were presented or used in an earlier court procedure, 2) if the court adopted decision based on criminal offence committed by a judge or court employee, or the decision was adopted by fraudulent action of legal representative or attorney of a party, or his/her opponent or an opponent's legal representative or attorney, and such action constitutes a criminal offense; 3) if the court's decision is based on a decision adopted in criminal or civil matter, and that decision was later annulled by another final court decision, and 4) if the document on which the court's decision was based is false or falsely altered, or if the witness, expert or a party, at the hearing before the court, gave false testimony, and the court decision was based on that testimony, and 5) if a party finds or gets the opportunity to use the earlier court decision adopted in the same administrative dispute; 6) if an interested party was not allowed to participate in the administrative dispute, and 7) if the position of the subsequently adopted decisions of the European Court of Human Rights in the same matter could be affecting the legality of completed court procedure. Because of the circumstances mentioned under 1) and 5) reopening will be permitted only if the party, without his/her fault, was not able to present these facts in the earlier procedure.

Reopening of procedure may be requested **no later than** 30 days from the date when the party learns the reason for reopening (*subjective term*), except for the circumstances listed under 7) when the reopening may be requested within 6 months from the date of pronouncement of the decision of the European Court of Human Rights in the Official Gazette of the Republic of Serbia. If the party found out the reasons for reopening the procedure before the court procedure was completed, and that reason could not be used during the procedure, the reopening can be requested within 30 days of receiving the decision of the court. After five years of validity of court decision (*objective term*), reopening of procedure cannot be requested.

On complaint for reopening procedure **decides the court** that adopted the decision to which the reason for reopening procedure refers.

In a complaint for reopening a procedure, it must be **specifically listed**: 1) court's decision adopted in procedure whose reopening is requested; 2) the legal grounds for reopening and evidence, that is, circumstances that make existence of such grounds probable; 3) the circumstances that show that complaint was filed in statutory deadline, and what would prove that and 4) the direction and the extent to which the change of court's decision adopted in procedure whose reopening is requested, is proposed.

The court will, **with a ruling, dismiss** the complaint for reopening procedure, if it finds that: 1) the complaint was filed by an unauthorized person, 2) the complaint was not filed timely, or 3) that the party did not at least make probable the existence of legal grounds for reopening of procedure.

If the court does not dismiss the complaint for these mentioned reasons, it will serve it to the opposing party in administrative dispute and interested parties, and invite them to, within 15 days**, respond to the complaint**. After the expiry of the deadline for responding to the complaint, the court adopts a **ruling with which it decides whether to allow reopening** of the procedure. If the court finds that there are legal grounds for reopening procedure, those procedural actions that are affected by the reasons for reopening, will be repeated. After repeated procedure, the court adopts a **decision**, with which the earlier decision may be: 1) left in force, 2) terminated, or 3) modified.

The appropriate legal protection against the court's decision regarding reopening a procedure is prescribed. Thus, against: 1) the decision of the court to dismiss a complaint for reopening proce-

dure; 2) the decision of the court, which does not allow reopening of procedure, and 3) the decision of the court adopted upon the complaint for reopening procedure, a request for a review of a court's decision may be filed. In the reopened procedure, upon the complaint and a request for a review of a court's decision, the provisions of the Law on Administrative Disputes are applied.

ENFORCEMENT OF A DECISION ADOPTED IN ADMINISTRATIVE DISPUTE

Decision adopted in administrative dispute is binding. Decision can be enforced when it becomes final.

When the court annuls the tax administrative act against which administrative disputed was instituted, the case is returned to the state of re-processing upon appeal, that is, the state before the annulled tax administrative act was passed. If according to the nature of matters in which administrative dispute occurred, instead of annulled tax administrative act a new one should be passed, the second-instance tax authority is obliged to adopt that act without delay, and no later than 30 days from the date of delivery of the decision, and is bind with legal opinion of the court and the remarks of the court in terms of the procedure.

If the second-instance tax authority, after annulment of the tax administrative act, passes the tax administrative act contrary to the legal interpretation of the court or remarks of the court in terms of the procedure, and the plaintiff files a new complaint, the court will annul the disputed tax administrative act and resolve tax matter with a decision, unless it is not possible due to the nature of the matter, or the subject of an administrative dispute is tax administrative act that was passed by discretion. About this case, the court informs the authority which supervises the work of the second-instance tax authority. Decision adopted in this case fully replaces the tax administrative act of the tax authority. If the court finds that due to the nature of matters that it cannot resolve a tax matter all by itself, it shall specifically explain that.

If the second-instance tax authority, after the annulment of the tax administrative act, does not pass immediately, but no later than 30 days, the new tax administrative act or an act on the enforcement of the decision adopted in the dispute of full jurisdiction, a party may file a separate submission to seek adoption of such an act. If a second-level tax authority does not adopt the requested act within seven days of party's request, a party may file a separate submission to seek adoption of such an act by the court that adopted the decision. At the request of the party, the court will seek from the second-instance tax authority a notice of the reasons for which the tax administrative act was not adopted. The second-instance tax authority is bound to provide this information immediately, but not later than seven days. If it fails to do so, or if given information does not justify the failure to enforce the court decision, the court will adopt a **ruling**, which would fully replace the tax administrative act of the tax authority, if the nature of matters allows it. The court will serve this ruling to the authority in charge of enforcement, and at the same time inform the supervising authority. The authority responsible for enforcement is obliged to enforce such ruling without delay.

In order to more accurate enforce final court decisions and for better respect of their authority, the right of the plaintiff for **compensation of damage** occurred due to failure or untimely enforcement of the decision adopted in administrative dispute, was prescribed This right can be exercised before the competent court, in a litigation, in accordance with the law.

When the second-instance tax authority adopts a tax administrative act in enforcement of the decision, and before that authority the **reopening of court procedure** is requested, reopening of procedure is allowed only if the reason for reopening occulted in that authority.

FINES IN ADMINISTRATIVE DISPUTE

If at the request of the Administrative Court, the Tax Administration or other state authority, authority of autonomous province, tax, or other authority of local self-government unit, or other holder of public authority, fails to submit documents within the period determined by the court, or does not specify reasonable grounds for failure to provide required documents - court will adopt a ruling which imposes a fine to the head of the authority of 10,000 to 50,000 dinars. Also, the head of

the tax authority that has not complied with the decision adopted in the administrative dispute, will be imposed by fine in the amount of 30,000 to 100,000 dinars. In case that the head, despite the fine, does perform obligation for which the sentence was imposed, the court may re-impose a fine in the amount prescribed. Fines imposed in administrative dispute are enforced ex officio.

INSTEAD OF CONCLUSION

One of the basic principles in the work of the tax authorities is the principle of legality, which is proclaimed by the provision of the Article 4 of the Law on Tax Procedure and Tax Administration. However, despite the legal provision on the principle of the legality in the work of the tax authorities, the fact is that these authorities sometimes adopt tax administrative acts contrary to the law that cause damage to tax debtors in tax procedure, or a benefit to which they are not entitled is given to them. From the fact that an unlawful tax administrative act is harmful to tax debtor or the state, the need arises to eliminate violations of the law committed with this act. Elimination of such violations of law is conducted in a special court procedure - administrative dispute. Accordingly, in the administrative dispute in tax matters it is decided on the legality of the tax administrative act, which was adopted in the process of assessment, collection or control of public revenues.

The Law on Tax Procedure and Tax Administration does not contain detailed provisions on the institution and conduct of administrative dispute as a special institute of control of tax procedure. Therefore, when instituting administrative dispute in tax matters, provisions of the Law on Administrative Disputes are applied.[10] On issues related to procedure in administrative disputes that are not regulated by this Law, the provisions of the law governing civil proceedings are applied.

The Law on Administrative Disputes proclaims the principle of a **fair trial** in administrative dispute. According to this principle, the court decides in administrative dispute according to the law and within a reasonable time, based on the facts set forth in an oral public hearing. In administrative dispute, the cost of the procedure is decided by the court. The costs of administrative dispute are expenditures incurred during the dispute or in connection with it.

Tax administrative act against which an appeal was unsuccessfully submitted, and administrative dispute was not instituted, that is, against which administrative dispute was unsuccessfully led, i.e. against which the complaint in an administrative dispute was not dismissed, becomes **final.**

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THE COUNTRY IN TRANSITION - BETWEEN THE DEVELOPMENT OF THE SOCIETY AND CORRUPTION

Full Professor **Cane Mojanoski**, PhD
Faculty of Security, Skopje, Republic of Macedonia

Abstract: The subject of this elaboration is the link between the character of the state and the phenomenon of corruption. Corruption deteriorates not only the moral values, but also the legal and economic values of contemporary societies, and ruins democracy; it implies crime, inequality, lack of confidence in the state institutions. Thus, corruption is an obstacle to healthy and sustainable social and economic development. Furthermore, it is a part of the chain of organized crime, and makes the rule of law impossible.

Nowadays, in the conditions of crises and lack of the cycles of investments, the state is the biggest entrepreneur. It has financial means at its disposal and the authority to employ residents in state services, i.e. the ones financed from the budget (public enterprises, schools, health establishments, services, administration) and in all this, political parties and their leaderships are the primary distributers of the new "authorizations"; they use the state property as if it were their own (such employments are understood as "the spoils" which are distributed after political elections).

This elaboration also deals with the perceptions of the citizens of the Republic of Macedonia related to the phenomenon of corruption. The results of the research speak that the degree of corruptness of 8.22 for the Customs and customs workers, 8.16 for political leaders, 8.10 for political parties, 8.00 for judges, 7.99 for state (managerial) functionaries, 7.74 for government officials, 7.64 for the inspection organs, 7.30 for prosecution, 7.27 for university professors, 7.26 for doctors and medical employees, 7.06 for police officers and police functionaries, 7.01for the institutions for selling of the state land, 6.69 for issues related to everyday life of the citizens, 6.59 for the organs of denationalisation, 6.10 for journalists, 5.73 for entrepreneurs, and 5.26 for non-govenrmental organizations.

Keywords: corruption, the risk of corruption, systematic corruption, "confined state".

INTRODUCTION

In this paper, corruption is observed as a negative social phenomenon. We can say that this phenomenon probably appeared simultaneously with the appearance of the institution of state; it has been present since the ancient times and defined during the Roman law (*Lex Julie Reputandae*). This crime was defined as offering, giving or accepting bribe with the intention of influencing an officer in relation to his or her work assignments. Aristotle, Machiavelli and Montesquieu (Pusic, 1989) stated that corruption is a sign of fragility of the moral values of society. Furthermore, they see corruption as immoral and harmful for the society, because the bearers of social functions have to intervene common, and not their own private interests.[1] In the development of the modern state, corruption is not only morally harmful but it is also considered as a cause for the ineffectiveness of the state. The most frequent forms of corruption are giving and accepting bribe, and nepotism - abuse of the work position for private goals. The proclaimed values - especially achieving goals regardless of the means - function as a motive for spreading of corruptive practice.

1 The data of the State Institute for Statistics speak that industrial production in December 2012, compared to the average production in 2005, decreased in 1,9%. The causes for this dicreasement are reduction in the energy production of 9,7%, then in the intermediary products of 7,4% and in the permanent products for consumer goods of 0,9 %. Observed through sectors, industrial production in December 2012 dicreased in 2,6% compared to the average production in 2005. (p. 11). The index of the physicalvolume of industrial production in R. Macedoniain December 2012 dicreased in4,8% compared to the previous month. Short-term statistical data for economic movements in R. Macedonia, No. 1.3.13.01; State Institute for Statistics, Skopje 2013, p. 11;

The very term in this sense denotes demoralization, blackmail, depravation, corruptibility, deviousness, bribing of incumbents, moral contortion. The economic aspect of corruption is equal to the incorrect behavior of the public officials who, abusing their work position and authorities, tend to benefit in their personal goals. The term "corruption" originates from Latin *corruptio* which has several meanings. It is related to demoralisation, deprivation, deviousness, perversity, corruptability, bribery.[2] As we can see, beside the most frequent meanings of the term *corruption*, this word denotes deviousness and deprivation as a process in general. In discussions, the term "corruptionist" is also used to denote - a demoralized person, one who accepts bribe, one who is greedy. Even though there have been efforts to define the term of corruption, the common definition has not been given yet. Thus, we speak about corruption and money laundry as two complex and dangerous social aberrations which influence the economic, moral, psychological and legal development of each community.[3]

Definitions start from conceptually-realistical and financial perspective which oppose the relativistic and conventionalistic grounds of corruption, insisting on the aproach which is viewed not only from the aspect of essence of corruption and its forms, but also from the aspect of consequences it provokes.Corruption is related to the state, on the logical ground that there cannot be corruption without the state and public authoizations. In this context, the settled relations between corruption and the public services present a genus proximum of every attempt to define this form of social abreviation. By this approach we would like to emphasise the following: a) corruption is a phenomenon which is related to the state and the public authorizations, i.e. managing with the public wealth. In the private sector it presents a different type of problem and provokes differen manners of dealing with it which comes from the difference in the protection of public and private interests; b) corruption also implies marginal cases which mainly refer to the parliamentary practice and political (large) corruption (soft money, pork barelling, log rolling, etc.), by which the initial criterion of definition which relates this phenomenon to formal organisations is not questioned; c) such marginal cases are not cause for scepticism and relativism, i.e. they do not make the efforts of defining of corruption difficut (as it is claimed by Pol Haywood, an autority in this sphere"[4].

Corruption is related to greed, which is a precondition for inclination of the individual toward corruptive practice. But, greed is not the only cause for the existence of corruption. This phenomenon also appears in relation to great social differences (for e.g. poverty of the public officials), falling apart and transformation of the entrepreneur systems. In present days, the state has become the biggest entrepreneur. Its organs conduct transformation of the state property. That is why having political authority becomes the most productive profession. From the beginning of the transition, work positions related to transformation of the property and redistribution of the assets have proved to be the most profitable. In this aspect, a certain number of non-governmental organizations and foundations which were orientated towards support of various not always clear transfers, have also contributed. Thus, in the previous period there were some organizations on the stage, usually non-governmental, which conducted certain economic activities (for e.g. construction of a village plumbing, or had the authority to redistribute the means obtained under the name of donation). Here, we can point out that certain international organizations were not very successful in application of the principle of publicity, in the way of selection of business subjects (for e.g. from training of certain teams of the state administration, researching of the public opinion, to various forms of donation and their redistribution[5].

Prevention of corruption is a challenge for all contemporary states. It is especially emphasized in politically instable systems. Indicators of instability may also include disrespect of the opposition, crash of political blocks in the society, broken ethnic relations and various forms of political

2 Milan Vujaklija: *Lexicon of Foreign Words and Expressions*, Prosveta, Belgrade, 1996/97; p.456; There is interpretation according to which corruption came as a compound word of the part 'cor' which means settlement, agreement, conspiracy, and the part of the verb „*rompere*" which means „break, tear appart". Thus, we can conclude that corruption is "a conspiracy to tear the social order apart"

See: www.transparentnost.org.rs/.../ALAC-... [accessed on 8.02.2013];

3 MiodragLabovic: *The Government Corrupts*; Gama, Skopje, 2006, pp.46-70;

4 Sasha B. Bovan: *Research of the Perception of corruption at the Faculty of Law in Belgrade;* Annuals of the Faculty of Law in Belgrade, yearLIX, 1/2011; p. 85;

5 MiodragLabovic: *The Government....* p.56;

turbulences. In such conditions, especially when the economic growth shows decrease, there are instances of weakening of the political, legal and economic control mechanisms of the state and the society as a whole. Among the numerous reasons for corruption are the following:

• the Government and its policy - by the means of agreements, privatization and giving concession (advertising by the means of the budget, subventions for agriculture activities, various social packages, etc.) provides financial benefits to individuals and enterprises (supports development of certain branches by reduction of customs or tax expenses), and to closer or "chosen" subjects (in financing of construction the state issues licenses, permissions for certain employments such as accountants, revisers, notaries, executors, police officials for employment in security agencies, etc.);

• tax evasion, especially when the tax system demotivates activities;

• small salaries of the state and public officials (the university staff is paid less than the average government official);

• corrupting politicians for the purpose of better election results (in times of elections, projects of new employments are promotions, open competitions and people are employed in work positions which will be effective only for two months after the elections);

• justice does not obey the laws but applies them selectively depending on the subjects of the governing state or political structure (justice gradually becomes a family business);

• money laundering with all-embracing help of the state[6].

Other reasons can probably be identified here, but the stated are regarded as the most significant. This political or institutional corruption is highly dangerous. It refers to abuse of the work position and respect in performing public works which do not have the character of purely state work positions (public delegates, leaders of political parties, managers of social, i.e. charity establishments or associations, etc.) but they do have social influence. This appears when the political structure is equaled to the state structure. Thus, the committee of the governing party proclaims when and where a new change of personnel will take place. First, they name the candidate, and the institutional structure only carries out the procedure. Thus, political corruption is the basic and the most dangerous type of corruption from which derives and spreads the corruptive practice in all segments of the economic and with it - the social life. Thus it happens that the institutions are only a façade without a real life[7]. Corruption twists policy as an aware and planned activity of the political subjects. In the corrupted society, political institutions, especially the syndicate and other subjects (political parties), such as legislative and judicial establishment are ineffective[8]. In such societies dominates the executive establishment and the role of the police is emphasized. That is why the Minister of Police is more present in the public than the Minister of Education. The analysis of the causes of corruption starts from the analysis of the legal system of the country and the manner of its functioning. Here, it is necessary to answer the questions of: to what extent the law is obeyed on the part of the legislative, executive and administrative establishment; whether and to which extent the law is obeyed by the employed in the government; whether there are "equal" and "more equal"; of what kind and extent is the pressure of the authorities over the judiciary, i.e. to which extent it conducts their work; what the perception of the citizens and economic subject is about the extent of corruption in the main social spheres and thus the judiciary; then, what the perceptions are on the functioning of the legal state and what is the legitimacy of the institutions of government measured by the confidence of the citizens in them?

In the modern countries, besides being regarded as socially harmful, corruption is a cause for ineffectiveness of the state. Thus, the basic forms of corruption are giving or accepting bribe, nepotism, and abuse of the work position in gaining personal benefits. In such cases the state functions as a personal union of the executive establishment and the management of the political party. Namely, the bearers of the executive are members of the executive bodies of the governing party.

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6 Ismail Zejneli: *Several Features od Corruption in M\acedonia and its Prevention*; pp. 5-7; www.fes.org.mk/.../Ismail%20Zejneli,%20NEKOI%20KARAKTERISTIKI%20NA%20KORUPCIJA%20... [7.05.2011];

7 Zoran Matevski: Sociological Aspects of Organised Crime and Corruption, p. 3; www.fes.org.mk/.../Zoran%20Matevski,%20SOCIOLOSKI%20ASPEKTI%20NA%20ORGANIZIRANIOT... [31.12.2010];

8 StjepanGredelj, ZoranGavrilovic, NatalijaSolic: *Profession (I) Corruption* - Activation of Professional Association in the Battle for Integrity of Professions and Against Corruption; Centre for Monitoring and Evaluation; Belgrade 2005, pp. 34-46;

The decisions are first brought in the executive organs, and then in the institutions. For each cadre decision the opinion of the party is necessary, which (in a form of a recommendation) becomes the only valid document. Thus, it sometimes happens that a person is employed in negligence of the law procedure, that he or she becomes the real bearer of that work position (e.g. state secretary of a Ministry), and that after a period of six months she or he becomes the named performer of that position. Nothing happens if it was not initiated in the party nomenclature. The circle of the people involved in corruption is strengthened in this manner. Only people of an extraordinarily high level of knowledge are excluded, such as scientists who conduct socially-technological innovations. Thus, the process of corruption is easily controlled.[9] This is why it happens that even besides all the organized efforts to attract foreign investors or initiate economical growth, the economy and the state have negative results. One of the causes is that the existing amount of knowledge is not used to the needed extent, and thus negative signals are emitted to the investors in the sphere of knowledge, which on its part leads to reduction of the degree of investment in knowledge. This magical circle in which authorities are observed as a personal property in which the partocracy rules, where people are devided in "ours" and "yours", where the justice and the media are controlled, where the work of police (especially the secret police) is not controlled, such state is called a state "confined" on the inside[10]. This is actially a provision which in political and other sciences gains qualification of a non-democratic regime[11].

Globalization and the global transition in all societies in the world provide conditions for corruptive practice all over the world. This does not refer only to the countries in transition; so it is possible to conclude that corruption presents a global problem. Combating corruption is a challenge for all contemporary democratic societies.[12] It became a way of life. There is even a sense that society cannot function without corruption. Unlawfully gained benefits, in the modern societies are achieved by money laundry. The term of money laundry implies putting of money acquired by doing of illegal activities (grey economy, trade with weapons, drugs, psychotropic substances etc.) in bank accounts or accounts of other financial organizations and institutions, or in other manners - investing such assets in legal financial courses which are performed by domestic and foreign legal and physical persons for conducting of permitted economic and financial activities[13]. In the social studies and - in that framework - in the security sciences, there are difficulties to measure the extent of this phenomenon. Here, it is especially difficult to set a system of measuring. Thus we can say that the researches speak more of the indicators instead of the state of corruptness.

Materials and methods of the researches of corruption

In the continuation we will present one part of the research results from the survey "The attitudes of the citizens of R. Macedonia about corruption". The survey was conducted in the period from 8th to 20th January 2013, on the territory of the Republic of Macedonia, in 38 municipalities all over the country. The survey embraced 1119 respondents of which 526 or 47.00% were women and 526 or 53.00% were men. The selection of the respondents was conducted by forming of the research goals. In each research, one out of five houses were selcted along with one our of twenty flats. The selection of respondents was done on the principle of the nearest birthday in the family. It was performed in the form of a structured face-to-face interview. The instrument (base for the talk), was structured in several block questions. In this ellaboration, we will show some of those results[14].

The research instrument ("base for talk") was structured so as to embrace six groups of data: the first group covers demografic features, the second is knowledge about corruption, the third

9 *Best Practices in the Battle against Corruption*; pp. 43-49; http://www.osce.org/mk/hcnm/32235 [26.07.2011];

10 Cane T. Mojanoski: *Political Party as a Device for Obtaining of Authority*; pp.423-27; See: The Reform of the Institutions and its Meaning for the Development of R. Macedonia; BookV, MANU; Skopje, 2009;

11 JonuzAbdulahi:*Social Changes and Corruption in Developing Countries*;p. 8; www.fes.org.mk/.../Jonuz%20 Abdullahi,%20SOCIJALNITE%20PROMENI%20I%20

KORUPCIJATA%20V...[11.02.2011]

12 Josip Kregar:*Corruption in the Justice System*, pp. 5-7; *www.pravo.hr/_download/repository/korupcijasudstvo.cg.doc[26.04.2011];*

13 AntunNovoselovic: *Public Security and Criminality in the Local Comminuity*; Croatian Annual for criminal law and practice (Zagreb), vol. 13, No. 2/2006, pp. 910-911.

14 Cane T. Mojanoski: Methodology of Security Sciences- bases, BookI; Faculty of Security, 2012, pp.416-423;

- experiences related to corruption, the fourth - the state regarding corruption, the fifth is about the readiness and decisiveness of the citizens in the battle against corruption. The structure of the questions was of a different form[15].

The subject of analisys in this work are the questions on evaluation of the risk. They were given in the following form:

According to your opinion, in which of the following situations are citizens mostly exposed to the risk of corruption? *(Scale thus: 1 - least, 7 - most. In each row, one number is circled; one number can be circled only once, in any of the rows)*							
1. In situations when they want to avoid consequences of their offences (traffic, financial etc.)	1	2	3	4	5	6	7
2. when they want to achieve their rights in the organs of public management, but in a shorter time than the usual, neglecting the procedure	1	2	3	4	5	6	7
3. in situations when they want to achieve gaining of property in accordance to the law, but in shortehed procedures	1	2	3	4	5	6	7
4. in situations when they are looking for employment and in cases of promotions attheir work places	1	2	3	4	5	6	7
5. in situations when they want to benefit (property or other), or to accelerate the process neglecting the procedure	1	2	3	4	5	6	7
6. in situations of entering faculty or sitting for exams	1	2	3	4	5	6	7
7. in situations of accomplishing of their rights in health insurance (accelerating of medical interventions)	1	2	3	4	5	6	7

For the researchers (the interviewers) there wereinstructions provided for accessing and gaining accordancefor participation of the citizens in the research. It was also acquired the principle ofranging.

Results and discussion

At the very beginning, we checked the amount and sources of knowledge of the citizens related to corruption and corruptive practices in the society. That is why we posed the following question at the very beginning: **"According to my oppinion, corruption is..?** and we gave the possibility of selecting more than one answers.

Table. 1 According to my opinion, corruption means:(more answers are possible)

	Frequency	Percent
(1) giving bribe	56	5.02
(2) accepting bribe	141	12.63
(3) abuse of authority	158	14.16
(4) illegal intermediation	60	5.38
(5) something else	4	0.36
(1 and 2) giving and accepting bribe	210	18.82
(2 and 3)accepting bribe and abuse of authority	55	4.93
(3 and 4) abuse of authority and illegal intermediation	16	1.43
(1. 2 and 3) giving and accepting bribe and abuse of authority	161	14.43
(1. 2 and 4) giving and accepting bribe and illegal intermediation	41	3.67
(1.2,3.4.) all of the stated	214	19.18
Total	**1116**	**100.00**

The results show that dominant in the perception of the citizens of the Republic of Macedonia are the awareness and persuasion that all of the offered answers present corruption, but giving and accepting bribe is the most frequent form of corruption; than it is the combination of giving and

15 Cane T. Mojanoski: Methodology of Security Sciences - research procedure, Book II; Faculty of Security, 2012, pp.415-421;

accepting bribe and abuse of the authority with 14.43%, and when we add here that 14.16% think that corruption is abuse of authority, than we can definitely say that within the respondents in the Republic of Macedonia at the beginning of 2013 dominates the awareness that the abuse of authority is the main source of corruption and corruptive behaviour. It is an indicator that certain forms and instruments of control are absent, i.e. that the legal mechanisms do not perform their control function. Such attitude can be noticed also in relation to the understanding of authority and its conduction. Namely, the **Byzantine-Ottoman** acquisitions direct us that the bearers of the authorities (not only individuals but also political parties, for example) behave in such a manner as if they were the institutions, and not the bearers of functions. So, if one expresses an open attitude that somebody's actions are not in accordance with the procedure given by the law, then he or she is publicly stigmatized and attacked using allegations that they are against the given institution and that they underestimate the results of their work. Here we should add that in controlled media, (the possibility of the regulatory body to pose pressure on the structure of the programme), the interpretation of the relative connections of the owners and bearers of political authorities, or the state body for electronic communications, could without any further explanations, simply abolish the frequency of the channel, the citizens are aware that there is abuse of work positions and authorizations, which is actually the most frequent form of corruption.

The distribution of the responses on whether the citizens are in obligation to give bribe is also very interesting.

Table. 2 Have you been in situation (or do you have personal experience) of being exposed to a risk of corruption (Have you given bribe)? (Circle one answer.)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	328	29.3	29.3	29.3
	No	627	56.0	56.0	85.3
	I do not want to answer	164	14.7	14.7	100.0
	Total	1119	100.0	100.0	

The offered distribution shows that almost one third, i.e. 29.3% claimed that they were in situation to give bribe. If we add here the answers marked as avoidance to give an answer, then the number is increased to 44%. The distribution from Table No.3 also indicates to this. Namely, one part of the answers to the question "What was required from you to give", were provided – by 433 respondents.

Table.3 If you answered YES, to which risk were you exposed? (What did you give)?

	Frequency	Percent
1. money in cash	163	37.64
2. money in account	41	9.47
3. sponsorship	23	5.31
4. favors of various types	97	22.40
5. other	109	25.17
Total	**433**	**100.00**

The distribution shows that citizens are mostly exposed to giving money in cash, then there are the other forms of corruption answered as "other", as well as favors of various types; 47.57% have given this answer.

In the scientific and expert discussions, corruption is classified in: internal-external, individually-institutional and material, political and psychical. Researches show that the most frequent is the extern corruption. This type is characterized as paying back for favors of performing or not performing some specific incumbent positions. Beside this, the form of the external corruption is giving gifts to the employees in influential positions in the society[16].

16 Sasha B. Bovan: *Research*....quoted. pp. 87-90;

Table .4 According to your opinion, in which of the following situations are the citizens mostly exposed to the risk of corruption? (1 - the least, 7 - the most)

	least	*most*	***average***
4. in situations when they are looking for employment and in cases of promotions at work places	33.01	66.99	4.84
5. in situations when they want to gain benfits (property or other), or to accelerate the process neglecting the procedure	39.54	60.46	4.56
1. In situations when they want to avoid consequences of their offences (traffic, financial etc.)	46.47	53.53	4.23
3. in situations when they want to gain property in accordance to the law, but in a shorthened procedure	45.89	54.11	4.13
2. when they want to achieve their rights in the organs of public management, but in a shorter time than the usual, neglecting the procedure	47.41	52.59	4.10
6. in situations of entering faculty or sitting for exams	49.33	50.67	4.08
7. in situations of acomplishing of their rights in health insurance (accelerating of medical interventions)	49.69	50.31	4.02

Our researches showed that citizens are mostly exposed to the risk of corruption when they are looking for employment or in cases of promotion at their work places. The total average mark is 4.84 out of 7.00 which denotes that it is very high. Let us say several words about how we gained this mark. Respondents evaluated the possibility of the exposedness of the citizens to the risk with marks from 1 to 7. Number 1 was for the least, i.e. that there is not corruption, and number 7 for the most, i.e. the highest degree of risk for corruption. Evaluation was based on grounds of modality in which it was possible to give one mark and that mark could not be repeated. That mark was pondered arithmetical average value of all individual frequencies increased for the factor of risk.

The second highest mark was the exposedness to the risk; these are situations where citizens want to achieve benefits (property or other), or to accelerate the process neglecting the procedure, which is certainly a form of briberyof the governemt officialsor other subjects to which citizens turn for help. This risk is evaluated by mark 4.56. The hierarchy of the risk expressed by these marks then puts the situations of intention to avoid the cosequences of the conducted offences (traffic, financial, etc.) with the mark 4.23. Then come "the situations of intention to gain propertiesin accordance to the law, but in shortened procedure" with the mark 4.13; then when in front of the organs of public management they want to accomplishtheir legal rights, but in a shorter period of time, neglecting the procedure" with the mark of 4.10; then in situations of entering faculty or sitting for exams, with the mark of 4.08 and in the end - in situations of accomplishing of theirrights related to health insurance (accelerating medical interventions)with the mark of 4.02. From all this, we can conclude that the evaluation of the exposedness of the citizens to the risk of corruption is somewhere between 4.02 and 4.86. The high mark shows that all the given forms are evaluated as highly risky. Namely, the average value of the group is 4.28. They are all above the average of 3.75.

The intern corruption is characterized by activities subordinate to the government officials (bribe, giving gifts) so that they could achieve some benefits from the supervising of the officials.

Individual corruption implies to activity of individuals in corruptive practice. This activity is discrete because in it participate only two persons. Such acts are characterized by giving and accepting of bribing gifts. This kind of corruption is the most broadly spread from all other kinds of corruption.

From the perspective of harmfulness over the society, the most dangerous is the institutional corruption because of the influence on the falling apart of the social values. Institutional corruption is followed by similar processes in policy and in the sphere of leading of the state. The influence of this kind of corruption over the public opinion and public awareness is great, because it causes fear and incertitude and fall of the moral values within most of the citizens.

Table.5 According to your opinion, in which of the following situations is the officialmostly exposed to the risk of corruption? (1- the least, 4 - the most)

	least	*most*	*average*
3 3. in cases of realisation of public purchases	31.33	68.67	2.95
4 4. in situations of professional procedurestowards relatives and friends	38.16	61.84	2.79
2 2. in administrative procedurein situations of solving of administrative conflicts	47.63	52.37	2.56
1 1. in administrative procedure, in situations when it is decided on administrative businesses	60.23	39.77	2.25

Corruption can be further divided in active and passive. In active corruption the person giving the bribe and thus influencing conduction of crime, is also involved.

If we group the first three answers as the lowest, and the last three as the highest exposedness to the risk of corruption, then we would have distributions according to which the greatest degree of risk is expressed in cases of tender competitions. Namely, the respondents state that the greatest risk exists in this procedure and evaluate it with the mark of 2.25 on a scale from 1 to 4. Further analysis points out that the entrepreneur is exposed to the risk of corruption in situations ofsettling the obligations towards the state, and they derive from activities such as paying of taxes or other expenses; they are evaluated with the mark of 2.07. Of a slightly weaker intensity are the situations of gaining advance in relation to other enerprices of the same branch, for performing activities.Such situations are evaluated with the mark of 2.04 as well as in the situations ofattracting clients (customers) with the mark of 2.02.

Table.6.According to your opinion, in which of the following situations the private sector is mostly exposed to the risk of corruption?

	least	*most*	*average*
4. in situations of winning the tender	25.38	74.62	2.25
2. in situations of settling obligations towards the state, and related to the activity (paying taxes or similar)	43.61	56.39	2.07
3. in situations ofproviding advance in doing activities	44.81	55.19	2.04
5. in situations of gaining clients (customers) in cases ofdoing activity	43.51	56.49	2.02
6. in situations when double standards are applied in cases of doing activities in relation to relatives and friends	48.03	51.97	1.99
1. in administrative procedure, in situations of responding to the legal preconditions for doing the activities for which they were founded	59.16	40.84	1.97

Somewhat weaker marks refer to situations when double standards are applied in cases of doing activities for the benefit of relatives and friends with the mark of 1.99, as well as in the administrative procedure, i.e. in situations of providingof the legalconditions for doing activities for which that enterprice was foundedwith the mark of 1.97. The total marks of the exposedness to corruption of the private sector and the entrepreneur reflect the real state of our society.

Passive corruption is characteristic for people who accept goods, and in return they perform crime which is related to the performing of their work responsibilities. The most typical form of corruption is the material corruption - giving bribe, which immediately brings benefits to both parties. The one giving bribe gains direct benefits by avoiding the procedure or the conditions of legal manners, i.e., in some cases the procedure is shortened. The other party, the one accepting the bribe, ruins ethnic norms and authority is understood as a private property from which direct benefits are gained. That is why it is important to observe the perceptions of the citizens in that respect. The research results reflect the line of risk existing within institutions.

To the question "in which of the following situations a bearer of a state function is mostly exposed to corruption", answers are given in the following Table No. 7.

On the grounds of these results we can state that the bearer of the state (managerial) function is mostly exposed to risks in "realisation of public purchases"; that risk is marked by 2.99 out of 4.00, then in situations of professional procedurestowards relatives and friends with 2.76, then follows the administrative procedurein situations when administrative conflicts are solved", with the mark of 2.58 and the least exposed to the risk of corruption - in situations when regular administrative businesses are solved", where the mark of risk is 2.28which is significantly lower compared to the previous, but compared to the total average mark, it is still high.

Table. 7 According to your opinion, in which of the following situations the bearer of a state (managerial) functionis mostly exposed to corruption? (1- least 4 - most)

	least	***most***	***average***
3. in cases of realisation of public purchases	30.73	69.27	2.99
4. in situations of professional procedure toward relatives or friends	38.01	61.99	2.76
2. in administrative procedures, in situations of solving of administrative conflicts	47.32	52.68	2.58
1. in administrative procedurein situations when it is decided on administrative businesses	59.36	40.64	2.28

In the further analysis we wanted to check which group of factors influence the attitudes of the citizens related to corruption in the country at the beginning of 2013.[17]

Here, it is given a group of 18 attitudes by which it is evaluated the degree of corruption of certain institutions in the country. The evaluation is conducted on a graphic scale from 1 to 10. Number 1 is for the lowest degree or no corruption, and number 10 is for the hihgest degree of corruption.

The research was conducted on a sample of 1119 citizens from 38 towns in the Republic of Macedonia.

T**able. 8** Descriptive parametres of the analysed variables

Descriptive Statistics											
	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness	Kurtosi	Kolmogorov-Smirnov Z	Asymp. Sig. (2-tailed)
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	statistic		
P.IV.19	1119	9	1	10	6.60	2.208	4.873	-.364)	-.519)	.528	.944
P.IV.20	1119	9	1	10	8.02	2.119	4.491	-1.057)	.411	.590	.877
P.IV.21	1119	9	1	10	8.08	2.126	4.519	-1.245)	1.029	.662	.773
P.IV.22	1119	9	1	10	7.91	2.021	4.085	-1.048)	.759	.593	.874
P.IV.23	1119	9	1	10	7.66	2.133	4.552	-.892)	.199	.717	.682
P.IV.24	1119	9	1	10	7.00	2.477	6.138	-.608)	-.513)	.479	.976
P.IV.25	1119	9	1	10	8.16	2.129	4.535	-1.309)	1.179	.707	.700
P.IV.26	1119	9	1	10	6.54	2.359	5.564	-.277)	-.747)	.577	.893
P.IV.27	1119	9	1	10	6.95	2.437	5.939	-.486)	-.722)	1.202	.111
P.IV.28	1119	9	1	10	7.62	2.209	4.881	-.879)	.109	.852	.463
P.IV.29	1118	9	1	10	7.21	2.485	6.177	-.734)	-.373)	.525	.946
P.IV.30	1119	9	1	10	7.98	2.221	4.932	-1.136)	.502	.492	.969
P.IV.31	1119	9	1	10	7.27	2.317	5.370	-.675)	-.375)	.309	1.000
P.IV.32	1119	9	1	10	7.20	2.501	6.253	-.696)	-.536)	.567	.905
P.IV.33	1119	9	1	10	6.02	2.754	7.582	-.142)	-1.147)	1.048	.222
P.IV.34	1119	9	1	10	5.22	2.731	7.459	.168	-1.033)	1.438	.032
P.IV.35	1119	9	1	10	5.68	2.581	6.661	-.027)	-1.012)	1.236	.094
Valid N (listwise)	1118										

For the evaluation, 17 points were used. For evaluation of the factors of the level of corruption in the everyday situations of the citizens; P.IV.20. Evaluate the level of corruption in the political

17 Patricia Fay Roberts-Walter: *Determining the Validity and Reliability of the Cultural Awarenessand Beliefs Inventory*:(A Dissertation); pp.78-86; http://repository.tamu.edu/bitstream/handle/1969.1/6013/etd-tamu-2007A-EDCI-WalterR.pdf?sequence=1 [accessed on 22.06.2012];

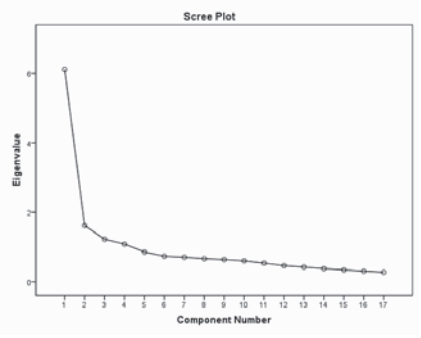
Sigbert Klinke, Andrija Mihoci and Wolfgang Härdle: *Exploratory Factor Analysis in mplus, r and SPSS*; pp.4-6;http://www.stat.auckland.ac.nz/~iase/publications/icots8/ICOTS8_4F4_KLINKE.pdf [accessed on 22.06.2012];

DanijelaBonacin, NusretSmajlovic: *Factor Analysis of some Cinematic Parameters of the Last Phases of Throwing Pike;* Acta Kinesiologica 1(2007)1; pp. 58-63;

DejanLalovic: *Co-relational-factor Researches of the Verbal Abilities*; pp.8-11; Compilation of the Institute for Pedagogical Researches; Belgrade; Year XXXVII; No 1; Jun 2005;

FactorAnalysis - Main Components - Mutual Factors;p.www.ekof.bg.ac.yu/nastava/.../9-FAKTORSKA%20ANALIZA.pdf [18.08.2009];

parties; P.IV.21. Evaluate the level of corruption within political leaders; P.IV.22. Evaluate the level of corruption within the bearers of state (managerial) functions; P.IV.23. Evaluate the level of corruption within the governement officials; P.IV.24. Evaluate the level of corruption within police officers and police functionaries; P.IV.25. Evaluate the level of corruption within Customs and customs workers; P.IV.26. Evaluate the level of corruption within the organs of denationalisation; P.IV.27. Evaluate the level of corruption within selling of the state land; P.IV.28. Evaluate the level of corruption within inspection organs; P.IV.29. Evaluate the level of corruption within doctors and medical workers; P.IV.30. Evaluate the level of corruption within judges; P.IV.31. Evaluate the level of corruption within prosecutors; P.IV.32. Evaluate the level of corruption within university professors; P.IV.33. Evaluate the level of corruption within journalists; P.IV.34. Evaluate the level of corruption within non-governmental organisations; P.IV.35. Evaluate the level of corruption within private entrepreneurs.



The results of the research were electronically ellaborated in the statistical package SPSS 18, and all of the variables were measured by basic statistical indicators:arithmetical average value (Mean), standard deviation (Std.Dev.), minimum result (Min.), maksimum result (Max.), coeficient of variability (Variance), Symetry (Skewness) and roundness (Kurtosis). The normal distribution of the results was tested by the Kolmogorov - Smirnov Z test. The connection of the applied variables was confirmed by the Pirson's coeficient of correlation (R). For confirmation of the justification by appliance of the factor analysis it was applied Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) which is 0.887, and Bartlett's Test of Sphericity whose value is 7011.217. This is signifficantly higher than (p=0.001). So,**we can state that the factor analysis is justified**, i.e. it can be applied as analytical procedure. This is also denoted by Scree plot.

For factorisation of the matrix of the intercorrelation and determination of the latent structure of the researched space, it was applied the Hoteling method of the main components (H);for determination of the number of meaningful main components it was applied the Kaiser-Gutman criterion, and for transformation of the meaningful main components in the (orthogonal and oblique) and for gaining of the most simple structures it was applied the orthogonal Varimaxand oblique Direct Obliminrotation.

If we analyse the data gained in Table 1 were the basic statistical parametres of 18 variables were given, we can state that the distribution of the results within several of the variables are mainly in the normal framework of the distribution, and certain aberation from this normal distribution show only the variables P.IV.34, P.IV.35 and P.IV.27. The measured results of the variability (Std.Dev., Skewness, Kurtosis andVariance) with slight exeptions show a certain degree of homogenity compared to the average values within one part of the analysed variables. Thus, with the help of these variables, it is defined the factor

On the grounds of the results obtained from the matrix, the **intercorrelation** (Table No.9), we can state that the applied system of variables, precisely the coeficient of correlation, show various statistically meaningful values. Thus, with the help of the variables it is defined the factor of *institutional corruption*; there are positive correlations and they are between 0.605 and 0.817. An other group of variables defines a different factor of *corruptibility of the private sector* whose positive coefficients of the correlation are between 0.634 and 0.726;within the variables which define a third factor*corruption in the public services* they are somewhere between 0.611 and 0.833; the fourth factor of *civil structure* is with the values from 0.664 to 0.827. Even the most simple analysis shows that these values present blocks of indicators which mutually correlate with certain internal homogenity which can be understood as an indicator for the existence of differen latent factors.

Table. 9 Matrix with intercorrelation variables on a level of (p<0.005)

Correlation Matrix																	
	P.IV.19	P.IV.20	P.IV.21	P.IV.22	P.IV.23	P.IV.24	P.IV.25	P.IV.26	P.IV.27	P.IV.28	P.IV.29	P.IV.30	P.IV.31	P.IV.32	P.IV.33	P.IV.34	P.IV.35
P.IV.19	1.000																
P.IV.20	.433	1.000															
P.IV.21	.369	.688	1.000														
P.IV.22	.363	.540	.559	1.000													
P.IV.23	.412	.430	.438	.574	1.000												
P.IV.24	.322	.312	.321	.327	.463	1.000											
P.IV.25	.249	.408	.368	.409	.387	.481	1.000										
P.IV.26	.263	.256	.257	.336	.339	.394	.352	1.000									
P.IV.27	.257	.280	.291	.376	.320	.330	.372	.541	1.000								
P.IV.28	.284	.328	.342	.455	.355	.379	.416	.373	.471	1.000							
P.IV.29	.278	.277	.260	.320	.334	.268	.283	.288	.298	.337	1.000						
P.IV.30	.253	.318	.312	.424	.339	.284	.403	.297	.327	.489	.470	1.000					
P.IV.31	.263	.333	.296	.396	.351	.281	.367	.383	.326	.423	.348	.659	1.000				
P.IV.32	.310	.276	.263	.299	.311	.246	.282	.227	.229	.274	.363	.343	.321	1.000			
P.IV.33	.182	.180	.241	.259	.252	.168	.112	.277	.261	.229	.240	.252	.290	.328	1.000		
P.IV.34	.199	.164	.147	.185	.139	.163	.099	.260	.218	.221	.225	.203	.204	.229	.440	1.000	
P.IV.35	.235	.179	.186	.232	.225	.245	.151	.288	.291	.276	.227	.179	.236	.259	.364	.576	1.000

In the further procedure, the matrix of the intercorrelation is conditioned with the help od Hoteling methodof the main component, and the number of the meaningful componenets was claimed by the Kaiser-Guttman criterion. From the gained results in Table 9 we can state that the applied system of attitudes formed five meaningful components with the percent of the total explained variance of **62.166**%. The first main component explaines the highest percent of the applied system and participates with 32.962%, the second component with 9.545%, the third main component with 7.211%, and the fourth main component with 6.384%.

Table.10: Characteristical korenovi (Lambda) and percent of total explained variances

Total Variance Explained										
Component		Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dimension0	1	6.114	35.962	35.962	6.114	35.962	35.962	2.992	17.598	17.598
	2	1.623	9.545	45.507	1.623	9.545	45.507	2.528	14.871	32.469
	3	1.226	7.211	52.718	1.226	7.211	52.718	2.461	14.477	46.946
	4	1.085	6.384	59.102	1.085	6.384	59.102	2.067	12.156	59.102
	5	.858	5.047	64.148						
	6	.737	4.335	68.484						
	17	.276	1.621	100.000						
Extraction Method: Principal Component Analysis.										

In the further analysis of the non-rotatedfactor matrix it was conducted ortogonal Varimax i Direct Oblimin rotation (Table No. 11), with the aim to obtain a simplified structure of the latent space. On the grounds of the obtained results from the oblique and orthogonal rotation, we can no-

tice stability and permanency of the separated latent factors regardless of the applied procedure for reduction, where the gained results are somewhat clearer after the oblique rotation of the variable.

On the grounds of the gained coeficients, meaningful are situations in the first factor, where the variables related to the degree of corruption are given - P.IV.20, P.IV.21, P.IV.22, P.IV.23(P.IV.20. Evaluate the level of corruption in the political parties; P.IV.21. Evaluate the level of corruption within political leaders; P.IV.22. Evaluate the level of corruption within the bearers of state (managerial) functions; P.IV.23. Evaluate the level of corruption within the government officials; with high positive values of the coeficients of 0.817 and 807 within the first two variables, (corruption within political parties and political leaders), and slightly weaker influence of 0.654 within the bearers of the state (managerial) functions and the lowest in this group is the coeficient of 0.605 for evaluation of the corupness of the government officials. On the grounds of these attitudes we can state that we are talking about **the factor og institutional corruption.**

P.IV.24. Evaluate the level of corruption within police officers and police functionaries; P.IV.25. Evaluate the level of corruption within Customs and customs workers; P.IV.26. Evaluate the level of corruption within the organs of denationalisation;

The second factor has positive tendencies somewhere between 0.634 and 0.726; here were observed the variables P.IV.24, P.IV.26 i P.IV.27. (P.IV.24. P.IV.24. Evaluate the level of corruption within police officers and police functionaries; P.IV.26. Evaluate the level of corruption within the organs of denationalisation; P.IV.27. Evaluate the level of corruption within selling of the state land; this factor can be called **factor of corruptness of the public sector.**

Table.11 Direct Obliminrotation and Varimaxrotation with evaluation of the degree of corruptiveness, institutions and manners of dealing with corruption

PatternMatrixa				
	Component			
	1	2	3	4
P.IV.19	.621	.147	.034	.012
P.IV.20	.876	-.044)	.005	-.054)
P.IV.21	.867	-.017)	.034	-.039)
P.IV.22	.630	-.019)	-.167)	.119
P.IV.23	.584	-.006)	-.064)	.212
P.IV.24	.262	-.010)	.074	.614
P.IV.25	.250	-.222)	-.209)	.502
P.IV.26	-.060)	.183	-.041)	.739
P.IV.27	-.031)	.131	-.071)	.722
P.IV.28	.059	.008	-.372)	.457
P.IV.29	.051	.096	-.624)	.002
P.IV.30	-.036)	-.090)	-.894)	.057
P.IV.31	-.031)	-.014)	-.770)	.120
P.IV.32	.212	.246	-.476)	-.167)
P.IV.33	.064	.643	-.202)	-.064)
P.IV.34	-.017)	.836	.006	.051
P.IV.35	.035	.769	.092	.204
ExtractionMethod: PrincipalComponentAnalysis. RotationMethod: ObliminwithKaiserNormalization. a. Rotationconvergedin 10 iterations.				

RotatedComponentMatrix[a]				
	Component			
	1	2	3	4
P.IV.19	.596	.147	.115	.213
P.IV.20	.817	.128	.164	.052
P.IV.21	.807	.136	.139	.075
P.IV.22	.654	.282	.302	.088
P.IV.23	.605	.341	.210	.090
P.IV.24	.341	.634	.070	.068
P.IV.25	.354	.566	.293	-.114)
P.IV.26	.097	.726	.151	.249
P.IV.27	.124	.719	.177	.204
P.IV.28	.218	.534	.428	.110
P.IV.29	.192	.152	.611	.187
P.IV.30	.163	.229	.833	.037
P.IV.31	.157	.272	.735	.101
P.IV.32	.295	.002	.497	.317
P.IV.33	.146	.045	.270	.664
P.IV.34	.059	.110	.095	.827
P.IV.35	.112	.246	.039	.769
ExtractionMethod: PrincipalComponentAnalysis. RotationMethod: VarimaxwithKaiserNormalization. a. Rotationconvergedin 6 iterations.				

*The third factor*has definite proections towards the variables about the evaluation of corruption P.IV.29, P.IV.30 andP.IV.31 and they are somewhere between 0.611 and 0.833. (P.IV.29. Evaluate the level of corruption within doctors and medical workers; P.IV.30. Evaluate the level of corruption within judges; P.IV.31. Evaluate the level of corruption within prosecutors); This factor can be called **corruption of the public services.**

And, at the end, *the fourth factor* (P.IV.33, P.IV.34 and P.IV.35) with positive values somewhere between 0.664 and 0.827 (P.IV.33. Evaluate the level of corruption within journalists; P.IV.34. Evaluate the level of corruption within non-governmental organisations; P.IV.35. Evaluate the level of corruption within private entrepreneurs);. This factor can be characterised as a **factor of the civil structure**.

On the grounds of the extent of the communality (Table No. 12), from all aspects defining the first factor, the greatest percent of the total variance was explained by the test P.IV.20 – (P.IV.20. Evaluate the level of corruption in the political parties) with 0.713.

Table. 12

Communalities		
	Initial	Extraction
P.IV.19	1.000	.435
P.IV.20	1.000	.713
P.IV.21	1.000	.694
P.IV.22	1.000	.606
P.IV.23	1.000	.535
P.IV.24	1.000	.527
P.IV.25	1.000	.545
P.IV.26	1.000	.622
P.IV.27	1.000	.605
P.IV.28	1.000	.528
P.IV.29	1.000	.468
P.IV.30	1.000	.775
P.IV.31	1.000	.648
P.IV.32	1.000	.435
P.IV.33	1.000	.537
P.IV.34	1.000	.709
P.IV.35	1.000	.666
Extraction Method: Principal Component Analysis.		

Table. 13

Component Transformation Matrix				
Component	1	2	3	4
1	.585	.531	.515	.332
2	-.482)	-.042)	.029	.874
3	.646	-.419)	-.531)	.354
4	-.082)	.736	-.672)	.013
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				

Factor:
a) institutional corruption
b)corruptness of the public sector
c) corruptness of the public services
d) civil structure

For assessment of the second factor is used the test P.IV.26 (P.IV.26. Evaluate the level of corruption within the organs of denationalisation;) with 0.622, for the third factor it is the tes P.IV.30 (P.IV.30. Evaluate the level of corruption within judges;) with 0.775 and for the fourth factor P.IV.34 (P.IV.34. Evaluate the level of corruption within non-governmental organisations;), where the coeficient is 0.709. These comunalities imply to the specificity of attitudes, i.e. the assessments of the contribution of certain states for setting the marks about the level of corruptness of certain institutions in the country.

On the grounds of the presented results obtained from the isolated factors (Table No. 13), it can be stated that between the factors two and four there is statistically signifficant positive correlation at a high level 0.874 and it (the corruptness of the public sector) is related to corruption of the civil structure, then, the correlation between the fourth and the second factor is positive and on a high level of 0.736, then follows the relation between the third and the fourth factors with highly positive correlation of 0.618, then the statistically positive correlation between the first and the third factors which is on a high level of significance of 0.646, which implies that these factors significantly contribute in the defined structure of the level of corruptness, i.e. the corrupted space in the country. Weaker results at the middle level of significance are the relations between the first, the second and the third factors. Their values are 0.531, then 0.515 and somewhat weaker influence is the relation with the fourth factor of 0.332. The weakest influence is establishedbetween the first and the fourth factor. Their coeficient is on a low level of the statistical signifficance and it is positive.

The data show that the relation among the factors is statistically signifficant and it ukazuje on the independence and the orthogonality of the isolated factors. That is why we can state that the keys obtained with the help of the oblique *Oblimin* transformations do not differ significantly from those obtained by the orthogonal Varimax rotation.That is why in the realisation of this analysis we used only reduction of the factors on the grounds of Varimax rotation[18].

These questions were created in such manner that the respondents can define the level of corruptness of an individual subject in society on a grafic scale from 1 to 10. The estimations were brought by application of pondering of the responses, according to the degree of corrupness. One is for the least (or no corruption), and ten is for the most corrupted. On the grounds of such approach, we obtained the following order:

18 Michael Faulend; VedranSosic: *Is the in-official Government a Source of Corruption?* Croatian National Bank; Zagreb; 1999, pp. 8-9;

Table.14 Estimation of corruptness
(1- least 10 - most)

	mark	estimated
1	8,22	Customs and customs workers
2	8.16	Political leaders
3	8.10	Political parties
4	8.00	judges
5	7.99	Administrative functionaries
6	7.74	Government officials
7	7.64	Inspection organs
8	7.30	Prosecution
9	7.27	University professors
10	7.26	Doctors and medical workers
11	7.06	Police officers and officials
12	7.01	Selling of the state land
13	6.69	Everyday situations
14	6.59	Organs for denationalisation
15	6.10	Journalists
16	5.73	Entrepreneurs
17	5.26	Non-government organisations

We can state that in the perceptions of the respondents in the Republic of Macedonia at the beginning of 2013, they estimated that Customs and customs workers obtained the mark of 8.22, then the mark of 8.16 for political leaders, 8.10 for political parties, 8.00 for judges, 7.99 for state (managerial) functionaries, 7.74 for governemt officials, 7.64 for inspection organs, 7.30 for prosecution, 7.27 for university professors, 7.26 for doctors and medical workers, 7.06 for police officers and police functionaries, 7.01 for the organs of the selling of the state land, 6.69 for staff related to everyday activities of the citizens, 6.59 for the organs of denationalisation, 6.10 for journalists, 5.73 for entrepreneurs and 5.26 for non-governmental organisations.[19] This structure as well as the realisation of the factor analysis refer to the point that in the perceptions of the citizens, the state of corruptness is estimated as high. Data go in directions that high coeficients of corruptness are related to the state organs and the bearers of the authorisations in society and all this implies that the development of the state and the institutional structure is in the process of construction of mechanisms for more effective performance defined by the law. From all the so far said, we can state that the mechanisms in charge for realisation of the protection of the citizens and their perceptions are part of the connotation of corruptness, i.e., they are in the sight of the corrupted environment[20].

That is why today, the question of reforming of the state and the state structure is more and more ongoing towards proper behavior and setting of policy which is comparable to the practice in countries whose institutions are stable and overlook human freedom and welfare.[21]

CONCLUSION

The so far discussions show that the question of corruption and corruptive activities in the country is still present even now, twenty years after the fall of the one-party system and the monopoly. Research results imply that the civil sector is in lack of arguments to confide in the capability of the institutions in performing their assignments given by the law, and achieve their goals through these institutions. This statement is also emphasized by the responds of the citizens who say that in need to solve some problem, they would be put in obligation to offer bribe. Thus, the respondents responded that in need to solve their problems, in 433 of the cases they were obligated to give bribe, of whom in 163 cases or 37.64% they were obligated to pay money in cash, then 41 or 9.47% to pay money on personal account, to sponsor some activities - 23 or 5.31%, or to do favours of varios types - 97 or 22.40%. A certain number of 109 respondents or 25.17% responded that they gave bribe in other forms. This distribution is only an indicator of the real situation of corruption and corruptiveness of our society and the state.

Nevertheless, the question of what it should be done to reduce corruption is here imposed. For its prevention, the most responsible are the state organs. It is their task to conduct various strategies (to provide changes and amendments of the law, to limit the authority of public professions, to im-

19 *Medium Sphere: Interruption of Corruption - Bosnia and Herzegovina, Croatia,Slovenia, Serbia: National Report and Monitoring of Political Magazines*; Journalist School in NoviSad, 2010; pp 37-38;
20 BojanDobovšek: *Prevention from Corruption*; Administration of Police, Podgorica; 2009; pp. 49-52;
21 Veselj Ljatifi: *Прашања околу откривањето и борбата против корупцијата*; p.3;
www.fes.org.mk/.../Veselj%20Latifi,%20Prasanja%20okolu%20otkrivanjeto%20i%20borbata%20protiv%20kor... [11.02.2011];

pose control over these processes, to cause positive changes of the work habits and the professional codes, to control public advertisements, to establish independent organs for fight against corruption and provoke activities of the non-governmental organizations). In this area certain results were achieved. But objectively, there is a lack of control, responsibility.

Education, training and informing of the government officials, entrepreneurs and politicians about the corruptive practice and the consequences of such practice over the society as a whole, is a measure which could contribute to strengthening of the state mechanisms in the fight against corruption. The usual practice is that through the training of the incumbents, they get familiar with their permitted and prohibited practice and the consequences of the corruptive behaviour. The influence of the training has to initiate a change in the professional (sub) culture.

The significance of the civil society and the media is inevitable in the context of the battle, and especially in combating of the corruption. It is because the state organs cannot fight corruption alone. For such tackle, for combating and prevention of corruption, a broader social consensus is necessary. Discussions through the media, scientific gatherings, public discussions and debates about this problem can influence the public awareness of the citizens about the problem of corruption and the possible measures for its combating. Political-economic reforms, legitimate authorities, reform of the state institutions, transparency and professionalism are preconditions for an ambient where corruption will not be tolerated.

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MANAGEMENT AND (DE) POLITICISATION OF THE SENIOR CIVIL SERVICE[1]

Assistant Professor **Zorica Vukašinović Radojičić**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: This paper outlines potential explanations of Senior Civil Service management and politicisation and different patterns of politicisation in European countries, particularly in Central and Eastern European Civil Service systems. It points out to the existence and quality of implementation of civil service legislation as a main instrument in setting the framework for the development of a professional and de-politicised public administration. The paper will tackle the issue of senior civil servants appointments (selection) and formal political influence to the process of appointment and dismissal of senior civil servants. The aim of the paper is to explore whether Civil service laws guarantee stable, impartial and professional Civil Service, protecting senior civil servants from political interference and discretion. It will address the problem of instability of administrative legislation, quality of implementation and the supremacy of politics over legislation.

Key words: Senior civil service, De-politicisation, Professionalism, Political discretion, Senior Civil Service appointments, State-building.

INTRODUCTORY REMARKS

Politicisation is a process that strongly influences the civil service work and decision making process.[2] The high level of politicisation influence to the substantial personnel shifts in civil service, hindering appointments based on merit and principles of stability and professional continuity.[3] According to some authors, politicisation is viewed as "the substitution of political criteria for merit criteria in the selection, retention, promotion, rewards and disciplining members of the public service."[4] In addition to this, we should emphasize that professionalization and political neutrality of the senior civil service has been a key issue in the public administration reform programs.[5] Without a professional senior administrative layer it would be difficult to move the overall economic and social reform process forward and prepare the country for the European Union accession.

Although the European Union legal system leaves autonomy to the Member States regarding their institutional and administrative organization[6], preparation for membership gradually worked as a factor and incentive to shape and develop structures and institutions capable of meeting the obligation and needs of European Union membership.[7] Candidate countries have become obliged to comply with general European principles of public administration, which existed within the "European Administrative Space".[8] The idea of "European Administrative Space" was that, in spite of the differences of institutional configurations, a degree of convergence existed among member

1 This paper is the result of the research on the following projects: *"Status and Role of the Police in a Democratic State"*, which is financed by the Academy of Criminalistic and Police Studies; the scientific research project entitled *"Development of Institutional Capacities, Standards and Procedures for Fighting Organized Crime and Terrorism in Climate of International Integrations"*, which is financed by the Ministry of Education and Science of the Republic of Serbia (No 179045), and carried out by the Academy of Criminalistic and Police Studies in Belgrade (2011-2014). The leader of the Project is Associate Professor Saša Mijalković, PhD.

2 The notion of politicisation could have ideological meaning reffering to the system of value, but most often, it refers to the loyalty of the senior civil servants to the political parties. Y. Meny, A. Knapp, (1998) *Government and Politics in Western Europe – Britain, France, Italy, Germany,* third edition, Oxford University Press, New York, pp. 305.

3 J. Pierre, B.G. Peters, (2003) *Handbook of Public Administration*, London, Sage.

4 Peters, B. Guy, and J. Pierre (2004) Politicization of the Civil Service in Comparative perspective, London, Routledge.

5 In EU Regular Assessments, Sigma assessments, etc..

6 The general rule is that The Community legal system leaves the autonomy to institutional and administrative organization of member states - there is no direct influence of European Union to national administrations. National administrations should have the sufficient capacity to implement the EC law, with an acceptable standard of effectiveness, as defined by the jurisprudence of The Court of Justice. Sigma paper No 27 (1998) *"European principles for Public Administration"*, Paris.

7 B. Lippert, G. Umbbach (2005) *The Pressure of Europeanisation – from post-communist state administrations to normal players in the EU system*, Institute for European policy, Berlin.

8 These principles were developed by joint initiative of OECD and SIGMA in the 1990s.

states at least at the level of general principles.[9] The adoption and efficient implementation of Sigma's standards shall influence the development of national public administration systems and encourage harmonization of national legislation with European Union legislation. The European Union through its institutions - European Commission and SIGMA particularly emphasize the importance of professionalization and de-politicisation of the senior civil service. Finally, only professional senior civil service could provide dissemination of European principles within the civil service.

In order to achieve the de-politicisation of the senior civil service, European Union principles and policy aim to reduce (minimize) the possibilities for the exercise of political discretion over the selection and appointment of senior civil servants. Therefore, it is very important to analyze the extent to which the selection rules for the selection and appointment of senior officials can ensure the political independence of appointees. The paper will elaborate the scope of civil service in European countries, the intensity of politicisation and the procedures for senior official's selection and appointment. It will explore whether the formal rules may eliminate or/and reduce actual politicisation.

THE CIVIL SERVICE LAWS AND THE SCOPE OF "SENIOR CIVIL SERVICE" IN EUROPEAN COUNTRIES

In most of civil service systems, a group of civil servants are appointed ("senior civil service") to top-level positions across public service system. The group of senior officials is variously called in different countries, but the generic term Senior Civil (Public) service has been used to describe their status. In France, the notion of senior management is not clearly defined, but it usually refers to the members of the generalist "corps" recruited mostly from the competitive examinations at Ecole Nationale d'Administration (ENA) and members of the superior technical corps (Ecole Polytechnique), while in Italy, senior management (la dirigenza) is determined by the managerial responsibilities in ministries, not qualifications. In the United Kingdom, the senior civil service includes Senior Directors (Directors general, Directors, etc.), political advisors and agency directors.

The senior civil servants have a crucial role in the overall process of improvement of public administration performance. They are to provide effective and accountable leadership and management. This group of officials usually works in policy-making in national government, executing the most important administrative public functions. Their professional knowledge and experience contribute in shaping and implementing governmental strategies. They work closely with ministers and senior political leaders. As occupying the highest managing positions, they act as mediators between political and professional civil service and also play a crucial role in providing a balance between administrative continuity and political loyalty. They are expected to maintain continuity when government changes.[10]

The development of a professional and de-politicised senior civil service system including prospects of merit promotion to management positions are the key European civil service baselines.[11] The European Union and SIGMA emphasized the importance of the development of a professional and efficient administration. Regarding this basic requirement for the European Union membership, SIGMA has identified two secondary standards: a) the adoption and implementation of civil service laws, including a clearly defined scope of the civil service, in order to promote the rule of law in public administration as well as principle of legal predictability and accountability and b) the existence of senior civil service systems that ensure merit selection and promotion to management ranks of the civil service as opposed to politicisation, in order to ensure principles of effectiveness and political neutrality of the civil service.[12] These standards shall be evaluated by SIGMA and the institutions of the European Union, after accession also; monitoring this issue is a permanent process.

9 SIGMA paper 44, prepared by J. M. Sahling, (2009) *Sustainability of Civil Service Reforms in Central and Eastern Europe Five Years after Accession*, OECD, Paris. Priniples of Legality, Responsibility and Accountability are modern priniples which constitute „European Administrative Space" – informal *"Acqui Communautaire"* and have to be adopted and implemented in national legislations. Each principle includes secondary principles – political neutrality, impartiality, professional integrity, etc..

10 World Bank, *Senior Public Service: High Performing Managers of Government,* www1.worldbank.org/**publicsector**/civil**service.**

11 SIGMA Baselines (1999) *Control and Management System Baselines for European Union Membership*.

12 SIGMA, *Civil Service Professionalization in the Western Balkans,* Sigma Paper No.48, GOV/SIGMA (2012)1, 2012, pp. 14.

The adoption of the civil service laws is one of the most important requirements of the European Union policy regarding public administration reform in the pre-accession period. We should consider two main aspects: a) formal rules (laws and secondary legislation) and b) rule implementation (management practices). Consequently, civil service laws differ largely regarding their scope.[13] Most countries maintain a clear separation between political appointments and senior civil service. Recent surveys undertaken in Central and Eastern and Western Balkan states have clearly pointed out to the narrowing the scope of civil service laws at the top, in particular in order to facilitate political appointments to the highest positions within civil service.[14] However, it is important to highlight that adoption of laws is not sufficient for the professionalization of the civil service - the main challenge remains the implementation of the law. In addition to this, frequent amendments of civil service laws do not support principles of legal predictability and certainty. The stability and continuity of civil service may be seriously ruined.

APPOINTMENT OF SENIOR CIVIL SERVANTS IN EUROPEAN COUNTRIES

Merit based appointment of senior civil servants should guarantee the establishment of "good administration" principles - professionalisation, de-politicisation, political neutrality, impartiality, transparency and accountability. The selection and appointment criteria should be clearly prescribed by regulation, but the crucial requirement refers to the effective implementation of those provisions in practice. Occupying the highest positions within public administration, senior officials are exposed to the considerable political influence, but regulation must lay down the provisions for recruitment (appointment), selection (prescribing employment conditions and open competition), dismissal, promotion (based on merit), participating in political activities, declaration of wealth and assets, conflict of interest, remuneration, specific training, ethical standards, etc. Only full implementation of those rules can seriously reduce (minimize) political influences over the civil service work. Special issue regarding their status refers to their mobility within public administration, during their career, working in different public organizations. It provides stronger cohesion within administration and can provide stability during period of political and government changes.

In career based systems, senior officials are recruited through competitive examinations. They are selected very early in their careers; they are educated and trained to become elite administrative personnel, fostering common culture and value system and efficient communication across government. However, career system is a closed system – appointments to top positions are made only from among members of this selected group. It is very difficult not only for highly qualified persons outside government, but also for senior servants from other organizations to get selected for top positions. In career system, selection is followed by the competitive examination from among university graduates – according to academic excellence criteria.[15] In these countries recruitment is based on competitive examinations and centralized training after university or early in the careers of potential servants.[16] In addition to this, senior officials shall acquire skills and knowledge of government through training and career management.

In position-based systems, all professional servants within public administration and even those outside administration can compete for top positions. In these systems, only those servants who have gain professional competence (experience) can meet the requirements to take the highest civil servants posts. New recruitment criteria are focused to the former management experience and an opening of the posts to candidates coming from outside the public service.[17] The absence of specific academic requirements encourages open recruitment. However, there is also a risk of political

13 In most of the countries, positions below the Minister level are the positions of Deputy minister/State secretary or secretary in Estonia, second level belongs to the positions of Deputy secretary general or Under-Secretary or Director general, third level are Heads of department and the fourth level comprises of Deputy heads of department.

14 SIGMA, *Civil Service Professionalization in the Western Balkans,* Sigma Paper No.48, GOV/SIGMA (2012)1, 2012, pp. 22.

15 In France, senior civil servants are mainly university graduates from Ecole Nationale d'Administration (ENA).

16 In France, Italy, Spain. OECD, GOV/PUMA, (2003) *Managing Senior Management : Senior Civil Service Reform in OECD Member Countries,* Paris, pp.11.

17 In the United Kingdom, Belgium, Finland.

appointments, as senior civil servants do not stay together long enough to develop an "esprit de corps". We should emphasize that the countries adopted one ore another system, have also adopted elements of the alternate system in order to improve public administration efficiency. Some career based systems have introduced open competition among senior officials, so previously reserved positions for career based senior officials are recruited from outside the civil service. On the other hand, position based systems have introduced incentives to improve mobility between civil servants and foster esprit de corps through civil service. In both systems, *merit* is the basic selection criterion, followed by transparency of the competition procedure (involvement of independent commissions, experts, institutions, public, etc.).

The politicisation of the civil service has been a long standing concern of public administration in Central and Eastern European countries. These countries have transformed from communism and most of them have joined the European Union. After transition, they made a lot of attempts to develop professional civil service. Western Balkan states have also similar administrative-political legacy, but they differ from the Central and Eastern European countries regarding the scope and intensity of politicisation. We will point out to the level of politicisation in some countries and the scope of senior civil service.

The studies undertaken by the European Union experts have clearly pointed out to the degree of politicisation in these countries. According to the findings, the level of politicisation in the three Baltic States is rather low compared to other countries, such as Czech Republic, Hungary or Slovenia. Senior civil service in Lithuania and Estonia is largely de-politicised. The top senior officials are subject to open competition and vacancies are advertised. The process of selection is managed by the selection commissions consisting of public officials and/or independent external experts. In Lithuania and Latvia, even the state secretaries are the least politicised top-level appointees in Central and Eastern European countries. In these states, state secretaries are largely professional civil servants.[18] Deputy state secretaries and heads of departments are almost never politicised in these systems.[19] In Estonia, the selection of Secretaries General is conducted by the Competition and Evaluation Committee. Its members are senior officials, representatives of various institutions, trade unions and independent experts. There is usually one representative from the ministry, but it is important to stress out that there is no political representation. The Committee may propose one or more candidates to the minister, who will choose. Thus, as we pointed out, ministers have a role at the end of the selection process, but the pre-selection by the non-political representatives (experts) reduces possibilities for selecting a candidate whose main qualification is political loyalty to the minister. In the first stage of the selection process, there is an interview within the ministry, and it provides the ministry an opportunity to communicate to the central Committee. Besides, there is one person from the ministry, who may represent the minister's will. Finally, minister may not agree with the proposal of the Committee. An important function of the Committee is to prevent the obvious politicisation, by ensuring transparency in the selection process. From the other side, the committee shall take into account minister's preferences. A degree of flexibility and adaptability is one of the key elements of the success of the Committee's work.

In the Czech Republic, Slovenia and Hungary, the politicisation is very high for the top senior officials. The Czech Republic has no civil service law and no specific rules and procedures for the senior civil servants appointments and dismissals. Deputy Ministers are typically political posts. Directors of Sections and Directors of departments are often but not always political appointments. Ministers have discretion to make appointments to these positions. There are no selection committees and ministers have large discretion in selecting the candidates. According to the research from 2009, Directors general and Directors of department have become political appointees[20] and politicisation even reaches to the level of a Deputy Director and Head of unit. Nevertheless, the selection of senior servants is still unregulated. In Slovenia, the State Secretary is clearly a political appointee. However, candidates for the posts of a Director General, Secretaries general, Director of govern-

18 Previously, the list of eligible candidates should be made, but the final word shall have a minister in a certain Ministry.

19 Hinrik Meyer-Sahling J., Veen T. (2012) *Governing the post-communist state: Government alternation and senior civil service politicization in Central and Eastern Europe*, Routledge, London, East European Politics. http://www.tandfonline.com/loi/fjcs21.

20 SIGMA paper 44, prepared by J. M. Sahling, (2009) *Sustainability of Civil Service Reforms in Central and Eastern Europe Five Years after Accession*, OECD, Paris.

ment offices are selected by the Council of Officials, consisting of senior officials and independent experts. In order to select competent staff, the individual competition commissions are established, but the minister shall make final decision.[21] In practice, the Council has no power to prevent the politicisation of the senior civil service.

Poland and Slovakia have almost consistently the highest politicisation degree for all levels of senior officials. In Poland, State secretaries and Under-secretaries are clearly political appointments. Furthermore, the positions of Director General and Director of Department have become political over the last few years. According to the survey conducted in 2008, even the position of the Head of unit has become a political position in several ministries. In Slovakia, State secretaries and heads of service offices are clearly political appointments. The appointment of General Directors is also based on political criteria. Although the selection of General Directors is done on the basis of open competition and examinations (written tests, etc.), these procedures have been shown as ineffective. Politicisation includes Directors of divisions and down to the level of Director of unit. Intensity of politicisation is higher than in the other countries.

The Western Balkan states have similar legal and administrative tradition and communist legacy as the Central and Eastern European countries, but they are also characterized by many differences regarding the selection and appointment procedures of senior officials. We will discuss upon the practice in some Western Balkan states. In Bosnia, the top civil service position is General Secretary, followed by Assistant ministers who manage policy sectors in ministries. All vacant senior positions (General Secretaries and Assistant ministers) are advertised by the Bosnian Civil Service Agency; committees conduct examinations, but ministers have discretion to select from the list the suitable candidate. It means that the ministers have large discretion to choose candidate from the list, instead of the Agency. In Albania, the top positions are occupied by the General Secretaries, followed by Directors general and Directors of departments. The procedure for General Secretaries and other managerial positions is identical to the procedure for non-managing civil servants. Positions are advertised and committees conduct examinations. However, ministers have discretion to pick General Secretary from a list of three suitable candidates. In Croatia and Macedonia, the State Secretary is excluded from the civil service – it is a political appointment. In Macedonia, State Secretaries, are political appointments, proposed by minister. State advisors, Heads of departments are selected through recruitment procedures, open competition and discretionary selection by the State secretary. In Croatia, only an interview is required for the appointment of the Secretary general and Directors general; there is no written test. The process is decentralised and there is a large degree of discretion for ministers. In Montenegro, the top senior civil service positions are Secretary General and Deputy Minister. Written tests are not required; an interview is required only, and ministers have more discretion in selection of senior officials, although, there is an open competition.

Obviously, all Western Balkan states have introduced a separation between politics and administration and have established open competition procedures for the selection and appointments of senior officials. The civil service laws guarantee formal separation of politics and administration. According to the formal rules, an appointment should be usually for five-year terms – longer than electoral cycle. This provision is to maintain continuity of the civil service work and stability, no matter to governmental changes.[22] However, the appointment procedures have proven to be fairly ineffective and senior civil services are generally subject to a huge degree of politicisation. Concerning the European Union accession, the harmonisation with European standards shall be low. The survey conducted by SIGMA implies to the political connections are often more important for appointment and promotion than professional qualification and performance of civil servants. The European Commission and SIGMA have the main role to prevent further politicisation, but as the survey indicated, "de-politicisation has no raising prospects".[23]

21 After the 2004 change of Government, in Slovenia, there has been a significant political shift at the level of Directors General.

22 In some countries (Albania, Bosnia), General Secretaries and Assistant ministers are appointed for indefinite terms, but in practice, there is no actual difference.

23 SIGMA (2012) *Civil Service Professionalization in the Western Balkans,* Sigma Paper No.48, GOV/SIGMA (2012)1, pp. 50.

(DE)POLITICISATION OF SERBIAN SENIOR CIVIL SERVICE

Similar to other countries, in Serbia, the issue of de-politicisation of senior civil service has been also one of the key reform challenges. The first step in attempting to reduce politicisation has been the adoption of Civil Service Law in 2005 and drawing a line between political and administrative personnel. According to the Law, the positions of a Minister and a State Secretary (which used to be called Deputy Minister) are political posts. A State Secretary is appointed and dismissed by the Government on a Minister's proposal and his/her mandate terminates with the termination of a Minister's mandate.[24] A Secretary of Ministry position (which corresponds to some extent to the UK permanent Secretary) and Assistant Ministers posts (Heads of Sectors/Departments) are, in turn, envisaged to be senior civil service posts. The Law introduced mandatory recruitment by open and internal competition for these positions and established professional requirements that potential candidates have to meet in order to apply for senior civil service posts: university education and at least nine years of relevant work experience.[25] It is important to note that senior civil servants do not have a permanent position, but are appointed by the Government for a period of five years,[26] which goes beyond the mandate of any individual Government and should thus reduce politicisation. Although this may not be a fully satisfactory solution, we are of the opinion that it constitutes an important improvement from the previous system in which posts of Secretary of Ministry and Assistant Minister were subject to simple Government appointment, often based solely on political grounds. This is an important provision that should guarantee continuity and professionalism of civil service work. The Higher Civil Service Council is responsible for the selection and appointment procedure – appointing an examination committee and advertising vacant positions. Regarding the selection procedure, written tests are also required. Finally, after the selection, minister shall pick from the list of three successful candidates or reject it. In order to allow Ministers to get 'political advice' the Law on State Administration allows Ministers to appoint up to three special advisors,[27] which would form Ministerial Cabinets.

Concerning radical political changes in Serbia and complex political environment, established regulation has been amended several times, according to political interests. In 2008, when the new Government was formed, there was growing pressure from new coalition partners for making (political) appointments to senior positions without competition procedures. In order to find a compromise, coalition partners agreed to extend the deadline for the completion of competition procedures for senior officials until December 2009 and allow for temporary political appointments to senior positions (which are allowed under transitory provisions of the law). However, the Government was not able to fill all of the senior positions by the prescribed deadline (2010), as required by the Civil Service Law amendments.[28] In 2010, 35 per cent of all Assistant ministers and General Secretaries were not appointed through the procedure prescribed by the Higher Civil Service Council. Ministers made temporary appointments, which are subject to political discretion.[29]

After the establishment of new Government in 2012, the Law on ministries has been adopted, confirming the idea of supremacy of politics over formal rules.[30] According to the Article 38 of the Law, a Minister may suggest to the Government a dismissal of a senior civil servant (a Secretary

24 Article 24 of the Law on State Administration ("Official Gazette of the Republic of Serbia" No. 79/05).

25 The requirement of nine years of relevant work experience has been criticized as too restrictive and negative as it ignores the fact that democratic changes in Serbia began only in 2000 and therefore ensures that most senior positions are obtained by personnel who gained their experience only under the Milosevic's regime (see CMI, Corruption in Serbia 2007: Overview of Problems and Status of Reforms, draft paper, 11 May 2007). However, this requirement needs to be looked at from a broader systematic perspective, as the intention to restrict placement of inexperienced political party personnel to these important positions and instead give better chances to current career civil servants to obtain these positions in the future.

26 Paragraph 3, Article 25 and paragraph 3 Article 26 of the Law on State Administration.

27 Article 27 of the Law on State Administration.

28 The competition procedure was completed and staff was appointed to approximately 170 senior civil service positions, whereas the overall number of vacant senior civil service posts was between 30 and 400.

29 Rabrenović, A., Vukašinović Radojičić, Z. (2009) *Civil Service Reform in Serbia – Overcoming Implementation Challenges, Serbian Law in Transition: Changes and Challenges,* Institute of Comparative Law, Belgrade, pp. 29-44.

30 Rabrenović, A. *(De) politizacija državne uprave u zemljama bivše Jugoslavije - Nadmoć politike nad pravom,* Časopis za pravnu teoriju i praksu Pravni život, Broj 10, Tom II, Beograd, 2012, pp. 285-298.

General, Assistant minister, Director of a Government office or Organs affiliated to the Ministry), if a senior civil servant "has not been achieving working results".[31] The Government shall issue the decision on the termination of post. Regarding legal remedies, an appeal is not allowed, but a redundant civil servant may initiate an administrative dispute. We have to emphasize that this legal solution is not recognized by Civil Service Law that clearly stipulates the grounds for the dismissal of the posts.[32] New Government has immediately after elections started with the process of senior servants dismissals, hindering the process of de-politicisation. Under such circumstances, it is not easy to decrease the level of politicisation.

CONCLUDING REMARKS

The senior civil service de-politicisation is a very sensitive and complex issue, especially in the former communist countries - Central and Eastern countries and Western Balkan states, due to the predominant political criteria for the appointment, promotion and dismissal of senior officials, as opposed to meritocratic criterion. Despite the positive aspects of the adoption of civil service laws, defining the scope of civil service and prescribing the provisions on appointment and dismissal of senior civil servants, the merit system has not been yet fully guaranteed in practice, as recruitment decisions are still based excessively on discretion. Complex political environment in these states does not provide the solid grounds for the professionalisation of the senior civil service and establishment of the merit principle. The trend of growing politicisation is also continuing after European Union accession.

Although the civil service regulation in member states and candidate countries have been adopted in accordance with European standards, established regulation is frequently amended according to political interests. Practice has shown how difficult it is to introduce a professional senior management corps in an administrative environment where political shifts have strong influence to the appointments and dismissal of leadership positions. Governmental changes result with a pressure to politicise the highest civil service position in order to keep control over the most important ranks. It should be noted that civil service legislation is not a sufficient guarantee for the establishment of a professional and de-politicised civil service. Politics should not have supremacy over the law, but could actually law eliminate and/or minimize political influence? Main reform objective would be to ensure the political support and cooperation between political parties and interest groups in combating against political influence in order to develop professional civil service based on merit, adhering to the principles of legal predictability, continuity and stability of civil service.

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31 *Law on Ministries* (The Official Gazzete of the Republic of Serbia No72/2012).

32 A civil servant shall be dismissed if he/she has been sentenced to imprisonment of at least six months, if he/she has been sentenced to a disciplinary measure of termination of employment, if he/she had negative performance appraisal mark during the evaluation, if he/she has been a subject of an initiative for the dismissal of The Serbian Ombudsman or the Agency for fighting Corruption.

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SIGNIFICANCE OF PROFESSIONALIZATION AND DEPOLITICIZATION IN THE DEVELOPMENT OF EFFICIENT PUBLIC ADMINISTRATION

Assistant Professor **Zoran Jovanović**, PhD
Teaching Assistant **Jelena Jovičić**
Faculty of Law, University of Kragujevac

Abstract: The subject of this paper is the study of elements significant for the development of the efficient public administration. The development of a professional and depoliticized public administration is a continuous process comprising several elements ranging from the legal framework for the regulation of the status and position of civil servants to modernized working environment. Thus, professionalization and depoliticization of public administration are at the same time both the requirement and precondition of creating quality civil servants. Professional development of civil servants ought to be based on the concept of good governance in each country. This concept of good governance is based on the assumption that the business domain and public administration are fundamentally different and that they function differently which requires society trust in the government and comprises the principles of the rule of law, legality, reliability and availability. The most frequent models of public administration are bureaucratic model, new public management and the model of good governance.

Keywords: reform of the public administration, civil servants, good governance, new public management.

INTRODUCTION

Professional public administration based on the principle of ability and responsibility of civil servants is one of the fundamental reform objectives in the public administration in the Republic of Serbia. Defining of the legal framework regulating both the status of civil servants in a new manner and unique operating principles of public organ employees represents the initial phase of administration professionalization. New Law on civil servants and bylaws establish a civil service system based on the principles and standards adopted in European countries with introduced modern principles of human resource management. This provides a legal base for the development and modernization of administration enabling efficient and competent operation of employees in conducting public functions.

Modern public administration is becoming more complex and operating in a more complex and dynamic environment. Namely, there are numerous public administrations in the world characterized by a growing number of new tasks, functions, objectives, subjects, organizations and arrangements with other private, civil and nongovernmental sectors. Considering these circumstances, the conclusion is that only professional public administration is able to accomplish the appointed requirements in the reform process. The development of professional and depoliticized public administration is a continuous process comprising several elements with the initial phase, in the countries in transition, demanding engagement and great efforts to establish the base for the whole process.

Good Governance represents a new governing doctrine, which especially started developing in the nineties of the previous century. The concept of good governance represents a turning point comparing with the doctrine of 'new public management', which was especially popular during the eighties of the previous century. Administration reforms inspired by 'new public management' should have led to the decrease of public sector, reduction of social state and to administration decrease in general. It particularly related to activities performed in the public service regime.

Good governance approaches public management with an effort to develop the best practice and standards of operating with installed fundamental principles, which should be the base for

good governance as a doctrine. Other elements such as a higher level of democratization in political and governing institutions operating, greater openness in administration work as well as a greater role belonging to participation of citizens in administration processes characterize this doctrine.

This paper will represent basic elements significant for the development of professional public administration as well as the doctrine of good governance. The subject of the study will be parallel legal solutions with the detailed development presentation of professional and depoliticized public administration in the Republic of Serbia as well as of the manner the reform of public administration contributed to it.

ASSUMPTIONS FOR THE DEVELOPMENT OF EFFICIENT AND PROFESSIONAL PUBLIC ADMINISTRATION

The development of the efficient public administration indisputably relates to the implementation of the principle of professionalization and depoliticization of the public administration. There are three basic element groups as foundations of modern public administration development: legal framework for regulating the status and position of civil servants, qualified staff – civil servants and working environment closely related to the principle of work modernization. Different countries tend to develop a professional public administration in various manners. The members of European Union achieved a lot in the reform process of their public administration systems.

The reform process of a public administration can be determined in the wide and narrow scope. In the narrow scope, it can be determined as a procedure of changes in the mission, objectives, organization, functions, processes and actions within the modern legal systems, based on a new role of public administration with the purpose of developing market society and serving to citizens. In the wider scope, the concept of modern administration reform includes the change of organizational culture, professionalization, implementation of new methods of public managements, intensive growth in personal responsibility and initiative for task performing.[1]

The successful reform of the public administration in most countries was conducted as a systematic, organizational and sequential strategy with the objective of essential change in character and increase of efficiency and rationality of the public administration.[2]

If we consider the ways certain countries conducted the reform of their administration system, we can conclude that special attention was paid to the professionalization of the public administration. For example, there was a tendency of introducing the elite civil servants in France and Germany. Namely, the initial point of this civil servant definition is a French belief that civil servants enjoy a high prestige, as staff emanated from 'high education schools', staff that are to fulfill extremely high requirements in relation to their educational and competent qualities. In Germany it was noticed that Max Weber's concepts and his ideal type of bureaucratic-monocratic administration were implemented indicating the rule of 'division of labor, office hierarchy, command and obedience, formalization, detailed regulation, lifetime appointments of professional officers, discipline and profession ethics'. This tradition in Germany resists introducing of economic and managerial ideas and methods in the public administration. It includes a high social prestige of civil servants.[3] However, the reform process conducted in Germany after the Second World War, started from the status of civil servants and a lot was achieved regarding the simplifying of public administration and its de-bureaucratization especially after the seventies in the previous century.

Important changes regarding staff in British legal system were introduced with the tendency to maintain positive heritage of centuries-long development of English public service.[4] Contrary to traditionally closed elitism of key administrative staff – former 'administrative class', the reforms were directed towards opening of the highest positions of administrative state apparatus and towards candidates beyond this particular administrative organization and even beyond this admin-

1 D. Kavran, *Javna uprava – reforma, trening, efikasnost*, Belgrade, 2003, p. 270
2 D. Kavran, *Javna uprava – reforma, trening, efikasnost*, Belgrade, 2003, p. 270
3 E. Pusic, "Modernizacija velikih evropskih upravnih sistema", in: *Modernizacija državne uprave*, Zagreb, 2003, p. 12.
4 See: *The Civil Service*: *Continuity and Change*, Chapman, 1994, pp. 591-610.

istrative structure in general, primarily from the economy. Therefore, there are public vacancy announcements in the administration, even for the highest positions.[5]

It is obvious from the previous observations that mentioned countries approached the reform and development of an efficient public administration in a similar manner. Hence, the emphasis is on the developing of such systems of civil servants that will cherish professionalism, depoliticization and responsibility in work as fundamental values. The concept of public administration has radically changed so that an officer's position in the public administration equals the positions of other employees. There is a trend of vacancy announcement for the highest positions in the public administration filled with the candidates satisfying specific conditions. [6]

The Code Committee of the European Union Region on good officer work is also important part of the reform of public administration in the European legal space.[7] The Code indicates the significance of objective servants and making decisions according to appropriate regulations and facts. Apart from that, the emphasis is on the significance of consistency in administration operating as well as the concreteness in the contact with citizens. The responses administration gives must be complete and accurate with the fundamental objective to help citizens in their administrative tasks. The Code specifies the procedure and principles of servant activities as well as both their rights and obligations they are to fulfill regarding citizens. Similar codes of good administrative operating are adopted in other institutions of European Union so inefficacy and ineffectiveness of public administration in Brussels are overcome. This will certainly contribute to overcome bureaucracy alienation.[8]

DEPOLITICIZATION AND PROFESSIONALIZATION OF PUBLIC ADMINISTRATION IN THE REPUBLIC OF SERBIA

With the aim of moving Serbia closer to European administrative space and thus to European Union, the Public Administration Reform Strategy in the Republic of Serbia was adopted on 5 November 2004. This Strategy specifies its fundamental principles: decentralization principle, depoliticization principle, professionalization principle, rationalization principle and modernization principle. As it is apparent from the content of the Strategy, the principles of professionalization and depoliticization are considered as the fundamental principles which the reform of the public administration ought to be based on.

In that context, according to new regulations, public administration depoliticization of wide ranges and political functions are only the positions of ministers and secretary of state whereas the rest are civil servants and employees. Civil servants are divided into those on positions and those on executive positions. Thus, the selection is done according to vacancy announcements divided into internal and public.

However, the tendency to improve administrative capacities leads to the need to establish a specific legislative regime in the field of regulating legal position of civil servants. This specific legislation must be based on specific principles in order to achieve the following objectives: the rule of law, openness and public work, responsibility, legal security and efficiency. [9]

A specific law has regulated the position of civil servants in the Republic of Serbia since 1991.[10] This law consists of a series of solutions indicating the specificity of civil servant legal position but its main deficiency lies in unclear and imprecise solutions leading to legal gaps with the possibility of various interpretations and implementations. Apart from that, the main obstacle in developing professional public administration in the Republic of Serbia, from the aspect of legislation, is the absence of clearly established criteria for appointing staff on managing positions in state organs. This primarily relates to the appointment of the staff on the positions of deputy minister, the secretary of ministry and other, which should depend on abilities, experience and work results that are more professional and less dependent on political changes in the Government.

5 E. Pusic, "Modernizacija velikih evropskih upravnih sistema", in: *Modernizacija državne uprave*, Zagreb, 2003, p. 6.
6 D. Lozina, M. Klaric, *Nova javna uprava*, Split, 2003, p. 31.
7 See: D. Djukanovic, "Komitet regiona Evropske unije", in: *Evropsko zakonodavstvo*, no. 6, Belgrade, 2003, pp- 78-80.
8 A. S. Trbovic, D. Djukanovic, B. Knezevic, *Javna uprava i evropske integracije,* Belgrade, 2010, p. 95.
9 Public Administration Reform Strategy, 2004.
10 Law on Employment Relations in the State Organs, "Official Gazette RS", no. 48/91,44/98,49/99,34/01,39/02

The process of developing professional administration depends on the way of regulating the principles of recruitment, promotion and termination of employment. In order to become professional, a public administration must have equal, previously familiar conditions and it should be available to all who want and fulfill conditions necessary for such jobs. The positions of employees in public administration should depend on merits, abilities and results signifying depoliticization on one hand while on the other hand it will guarantee rules of promotion, permanent employment possibility without excluding the possibility of horizontal movement of employees organizing conditions and manner of labor termination.[11]

One of the most important issues within public administration reform for all the countries in transition and the Republic of Serbia as well, is the issue of depoliticization. Employees in the public administration must be neutral and not influenced by their political beliefs while performing work tasks. However, the implementation of depoliticization principle represents an additional step, which is a distinct division of labor and authorities between elected politicians and officials appointed based on political trust on one hand while on the other hand professional civil servants on high positions are appointed in the public administration. The depoliticization of the highest positions in the public administration is one of the most preferential reform principles. Thus, it is exceptionally important to establish an appropriate legal basis for restricting of political influence on operative managing in the public administration and for development and improvement of career system. According to the Law on Labor Relations in State Organs, article 24, the employed are obliged to improve their professional abilities and participate in all types of professional trainings organized in their institutions or in all types of trainings they are instructed to.[12]

The precondition for professional administration is expert and adequately educated staff. Therefore, the Strategy for training of civil servants in the Republic of Serbia for the period of 2011-2013 was adopted during 2011. The Strategy indicates the changes of legal and institutional framework in the named period that will start the establishing process of modern and sustainable training system for civil servants. The document indicates establishment of the Central national institution, which would perform the tasks of implementing the general expert training program for civil servants whereas the authorized ministry would be in charge of the tasks related to preparation, determining and monitoring of the training program implementation as well as of the managing process implementation of this important Strategy.

In practice, all employees are willing to acquire new knowledge and skills. One of the problems is the length of courses and trainings considering daily obligations of employees. Regarding this issue, experiences of other countries are significant. For example, there is the employment system reform in public administration bodies according to abilities or the merit system, which first started in the USA. According to the regulations of American Civil Service Reform Act in 1978, the principles of the merit system are based on the following rules: selection of employees and their improvement according to their abilities, knowledge and skills, through righteous and public openings, righteous and public acting in all the matters of managing people regardless the gender, race, political or religious background with respect of the right to privacy and constitutional rights, equal salary for the labor of the same value considering national and local wages financed by private employers with stimulations and recognitions for good results, high integrity standards, treatment and care for the public interest, retention of employees with good working results, improvement of work achievements through effective education and training, protecting officials from arbitrary behavior, individual superiority or political coercion, protecting employees from reprisal for lawful information disclosure.

Law on Amending and Changes of the Law on Civil Servants was adopted in 2009 (Official Gazette RS, no. 104/2009). Some of the basic changes relate to the strengthening of corruption fight and capacity strengthening of Citizen Protection institution. In this context, it is important to organize trainings in the field of corruption fight. Changes of the Law on Civil Servants and of the Law on Free Access to Information of Public Character introduced the obligation of civil servants to report corruption with provided certain protection from revenge processes.

These as well as other rules greatly influenced the public administration reform in the world. Numerous systems adopted some of the basic principles of the merit system resulting in changes in legislation of many countries within the field of the public administration. Thus, our country intro-

11 Public Administration Reform Strategy, 2004
12 Challenges of HRM, Agency for public administration improvement, Belgrade, 2002, p. 80.

duced professionalization and depoliticization of the public administration as the basic principles of the Strategy of Public Administration Reform.

GOOD GOVERNANCE CONCEPT

The concept of good governance is based on the assumption that the field of business and public administration are essentially and functionally different requiring the trust of society to government and comprising the principles of the rule of law, legality, reliability and availability. It must also address the issues of public responsibility towards citizens since the citizens want efficient public services as well as the protection of their rights. The concept of good governance includes four components. They are the legitimacy indicating that the managing system has the consent of those being managed, thus disposing of resources for approving and depriving the consent; reporting which assumes the mechanism ensuring the civil servants and political officials are responsible for their actions; and using public means demanding the visibility of managing and unbiased media, ability to appoint and conduct public policies and enabling efficient public services with respect and protection of human rights.[13]

The foundations of the good governance as a new managing doctrine originate from the nineties of the previous century with the appearance of the first doubts in the efficiency of managing reform conducted in accordance with recommendations of international institutions. Apart from doubts in the efficiency of managing measures in various parts of the world, the encouragement for socially responsible approach in governing was offered by different institutions such as the United Nations standing up on Millennium Summit for the subsequent period, which will be grounded on peace, disarmament, the rule of law and good governance.[14]

Considering the key indicators that the World Bank offered as fundamental criteria for determining the concept of good governance, it is obvious that the matter of the rule of law and existence of legal public is the basis of the 'good governance' doctrine.

Good governance can be observed in many various relations: in relation between governance and market especially considering the legislative mechanisms the governance use; in relation between citizens and governance considering that the governance ought to enable a democratic framework for active citizen participation in social affairs; in relation between officers coming to positions through selection and officers coming to positions through appointment, in relation between local authorities and their mutual relation towards central government; in interrelation in operation of legislative and executive authorities as well as on international basis, in relations existing between states and international organizations.

Fundamental principles of good governance are openness, participation, responsibility, effectiveness and coherence. Openness principle represents one of the basic principles present in beliefs on public administration reform. The foundation of 'good governance' concept is in awareness of the responsibility of political actors for their own activities both on the level of legislative and executive authorities. Accepting responsibility while making political decisions enables necessary credibility and authority in decision making for political institutions and their bodies influencing society and everyday life of citizens. Such a foundation enables an easier implementation of political decisions for public administration.

Effectiveness principle is the base for the implementation of management in the public sector. In the analysis of management results in the public administration, effectiveness is a significant and unavoidable factor for indicating a degree of quality functioning of governing institutions in the situation insisting on greater responsibility of governing bodies, which ought to lead to more quality work and better performance in public work.[15] Coherence principle indicates that the policies implemented by institutions ought to be mutually harmonious and comprehensible. Thus, while developing efficient good governance, it is necessary to work on better legislation including the simplifying of regulatory

13 I. P. Separovic, *Izazovi javnog menadžmenta-dileme javne uprave*, Zagreb, 2006, p. 137.

14 Argyriades, D.: *Good governance, professionalism, ethics and responsibility,* International Review of Administrative Sciences, Vol 72. No. 2, 2006, pp. 160-161.

15 Heinrich. C. J.: *Outcomes-Based Performance Management in the Public Sector: Implications for Government Accountability and Effectiveness,* Public Administration Review, Vol.62, no. 6, 2002, pp. 712-725.

framework, implementation of expert knowledge, cooperation with local and regional authorities to enable legislation implementation, strengthening network management and law enforcement.

As it is seen, reforms encouraged by the good governance principles derived from integration process implemented by the expansion of the European Union, lead to discussions about Europeanization of public administration and to possible development of European legal space. This indicates the acceptance of previously appointed rules of European public administration by new member states, as well as of the requirement to conduct far-reaching reforms related to governance bodies, staff structure and legal basis according to which public administration operates. Since 1992, EU and OECD have been operating within SIGMA project through a joint initiative, as a support to the countries of Middle and East Europe, for their analysis of sector and general administrative requirements for the membership in the EU whereas SIGMA intended to transform specific documents of the Union for particular countries into general directions for governance reform. The model of the public administration of EU was only a draft: focused on democratic principles, professionalism of public administration and sector governance organization.[16]

'Good governance' doctrine in the EU should be a combination of good governance practice and democratic element introducing the processes of decision making both on the level of the Union and member states. In the governance practice, a special attention should be paid to the concept of good governance through the development of efficient governance systems, which will be able to accept a unique principle, frequently in complex challenges, which the Union and members confront with. Due to that, it will be necessary to develop new institutional mechanisms with the operative foundation in the principles of 'good governance'. Democratic dimension of 'good governance' would include strengthening of democratic elements such as participation and monitoring of citizens and civil society institutions as well as depoliticization and professionalization of governance organization with the implementation of the rule-of-law principle.

MANAGEMENT APPROACH IN PROFESSIONALIZATION AND PUBLIC ADMINISTRATION REFORM

When defining a new public management, it is necessary to make certain clarifications. Indicating that managing is an activity set of planning, organizing, human resource managing, managing and controlling, we reach the defining of public management in the administration as a strategic and tactic planning, directing, coordinating, monitoring and activity control of public administration organizations. This activity is performed by public managers who are personally and directly responsible for achieving certain results as well as for efficiency and productivity of activities in public administration bodies. Foundation of public managing represents human resource managing or the process of recruitment, selection, acceptance, socialization, direction, adjustment and promotion of governing human resources.[17]

At the end of the seventies, within the reform of public administration sector in Great Britain, a special direction of administration reforms was defined and named New Public Management. This concept appeared as a response to ineffectiveness and insufficient productiveness of the existing governing systems. New public management is based on entirely new principles such as: professionalization of administration – emphasizing education of governing human resources and specific defining of their work tasks, rationalization of administration, reduction of expenses in public administration bodies and number of administration bodies, improving administration effectiveness and productiveness as well as public operation with complete responsibility of governing bodies both individual responsibility of governing human resources and social responsibility of governing organizations.[18]

New public management, as a form of governing reforms, enables the space for the implementation of various sources of innovative possibilities. Thus, knowledge is emphasized as the most significant resource. It is important to mention that the knowledge is a specialized knowledge of governing human resources that continually requires to be refreshed through specific specialized trainings, seminars and other educational contents. New public management encourages a higher

16 I.P. Separovic, *Izazovi javnog menadžmenta dileme javne uprave,* Zagreb, 2006, p. 146.
17 A. S. Trbovic, D. Djukanovic, B. Knezevic, *Javna uprava i evropske integracije,* Belgrade, 2010, p. 46.
18 Ibid.

level of citizen participation in governing task performing. Namely, governing systems based on the principles of new public management continually listen to citizen needs and motives in order to achieve a complete fulfillment of their needs. The development of information systems and constant introducing of technological innovations influence the improvement of effectiveness and productivity of governing operation. That indicates that establishing of information systems on all levels of government contributes to a complete governing and efficient protection of the citizens' data. New public management is characterized by the reduction of public administration expenses, decentralization of governing tasks and new public budgeting. It includes reduction of the number of public administration bodies as well as specific definition of their task range. An outstanding characteristic of the new public management is managerialism relating to the implementation of specific models of contemporary administrative and business governing. Managerialism includes strengthening of planning the role in the administration as well as finding of innovative models in organizational structures enabling the most efficient performance of governing tasks.[19]

New public management is not a uniform form of administrative reforms. To the contrary, its implementation differs from country to country. New public management questions the state role in relation to the public administration but questions the appropriateness matter of the existing administrative-legal norms. Additionally, it is necessary to pay attention to certain socio-cultural conditions such as intra-state stability. The implementation of new public management in transition countries initiates several issues related to adequacy of intra-state conditions following administrative reforms. Namely, the societies are different regarding the level of democracy, economic development, civil society development, current administrative practice, etc.

New public management emerged in the wake of criticism of traditional bureaucratic administrative organizations. The state became a massive apparatus with too many jurisdictions by expanding administrative organizations. Although certain classic theories emphasized specialization and rationalization of administration, the spirit of new age caused the pressure towards the improvement of effectiveness and fulfillment of specific citizen requirements who are the service users. The reality of crisis in administrative organizations initiated a new institutional transformation and development of new flexible organizational forms. The implementation of new public management definitely leads to strategic and operative managing of public policies. It indicates the abandonment of constant questioning and interpreting of politics and administration relation.

In the countries where new public management is implemented, the emphasis is on education and training of public managers.[20] That is primarily achieved through graduate and postgraduate studies. Multidisciplinarity - studying management, psychology, economics, law and political science is dominant within graduate and postgraduate studies for public managers. The training of public managers is organized through activities of project teams conducting practical trainings for administration employees. The significance of expert literature, magazines and documentary films should not be excluded either. Concerning that, the professionalization of administration indicates determining of selection and promotion system in administration human resources as well as a precise defining of their tasks. It indicates the division of labor so that an employee improves a specific task through constant trainings such as seminars, magazines, video presentations, etc.

Professional ethics of administrative staff indicates a responsible attitude towards citizens, society in general and towards the administrative organization. At the same time that is the tendency to fulfill the requirements of citizens with benefits for the whole society from administrative organizations indicating they are not only a financial burden. An adequate attitude of officers towards the organizations includes their loyalty as well.

Knowledge is one of the key innovative possibilities in the modern society. Knowledge, theoretical or empiric, general or specialized, supports better reaffirming of new public management.

CONCLUSION

Reforms in the public administration are initiated by the changes in society and public sphere. Political, legal, economic and social values can be differently combined and maintained in the re-

19 S. Lilic, M. I. Milosevic, P. Dimitrijevic, *Nauka o upravljanju,* op.cit, pp. 217-306.
20 D. Kavran, *Javna uprava: reforma, edukacija, trening, op.cit,* pp. 75-76.

form process of public administration. Therefore, modern administration reforms are possible only in educated and skilled, professional and motivated administrative staff. Only such officers can respond to increasing expectations of society. Thus, the changes in type, structure and manner of civil servant professionalization are emphasized as one of the most important concepts.

A comparative analysis of principle influence of administrative depoliticization and professionalization presents complex systems of civil servant education and specialization. Apart from the countries with traditional institutions for administrative officer education, e.g. Germany or France, there are interesting experiences of countries in transition such as Serbia. Thus, new institutions were developed to educate civil servants and prepare them to take and perform the task of strengthening public institution capacity, their functioning in accordance with democratic standards and the rule of law. Our state, in according with these tendencies, adopted the Public Administration Reform Strategy in 2004. Since then, a lot has been achieved through the reform and development of the effective system of public administration in Serbia with a special significance of professionalization and depoliticization principle.

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CHANGES TO THE ROLE OF THE PRIME MINISTER'S OFFICE IN HUNGARY SINCE THE CHANGE OF THE POLITICAL SYSTEM TO OUR DAYS

Lecturer **Lóránt Horváth**, PhD
National University of Public Service, Faculty of Law Enforcement, Hungary

Abstract: The end of communist regime and the constitutional reform (1990) have consolidated the role of Prime Minister's Office, and resulted in growing organisation and authority. One of the reasons was the stressed importance of implementation of the German model, building the government structure in the course of the Hungarian Round Table Talks. Hungary adopted two major constitutional principles of German chancellery during the constitutional reform process: constructive vote of no confidence, as well as the abolition of individual ministerial responsibility to Parliament. The Prime Minister also enjoys constitutional privileges following the German model, though this did not really prevail during the first two election period. It applies to each post communist Hungarian Prime Minister, they make efforts to concentrate and control political power. It succeeded more or less, depending on the current circumstances and the PM himself.

Keywords: Prime Minister's Office (MEH), government, parliament, Prime Minister.

INTRODUCTION

The characteristics of the political system evolving in the individual countries and of the Prime Minister's Office are determined by numerous factors, including without limitation historical, cultural and political traditions, the specific features of the society[1] and the differences between the constitutional systems. The characteristics and role of the Prime Minister's Office always depend on the political and constitutional law position, as well as the personality of the prime minister.

I wish to explain the parallel between the governmental system and the structure and role of Prime Minister's Office based on the theoretical model proposed by András Körösényi[2], which is to be presented below and which I shall rely on as theoretical basis and background throughout my discourse.[3] Although András Körösényi used his theory specifically with regard to the development of the British governmental system in his dissertation, the theory provides suitable grounds for presenting the political systems of other countries as well, provided that the individual phases are examined one by one rather than as a development trend.

This theory differentiates between three types of governments. The first type is the **cabinet-type government.** In this case, government decisions are made by the government as a body, and government sessions are characterised by informal discussions and debates. In this type of governmental system, the prime minister is regarded "*primus inter pares*", i.e. the first among equals, and his/her role is not significantly superior to that of the remaining members of the government. The government and the ministers are accountable to the parliament. The ministers assume personal responsibility. The parliament constitutes the primary platform of public discourse. During the periods of cabinet government, the Prime Minister's Office does not fulfil a particularly important role either, and it functions as the work organisation of the government as a whole rather than that of the head of government.

The secondary type of government is the **prime ministerial (or chancellery-type) government**. In this type of government, the prime minister's role is superior to the members of the government in terms of the responsibility assumed and the decision-making powers granted alike. This type

1 For example: If there is a strong non-governmental sector, what kind of and how significant ruptures are there in the given society, etc.
2 Körösényi András:Parlamentáris vagy „elnöki" kormányzás? Az Orbán-kormány összehasonlító perspektívából.In.: Századvég 2001, spring Új folyam, 2001 [20.] pp. 3-38.
3 Fehér Zoltán: He applies the same theoretical model in the first part of his study titled "A kormányzás háttérintézményei" [The background institution of government].

of government is characterized by formalized, bureaucratic government sessions, which obviously requires an increased number of background staff of the government as a whole and the head of the government. This type of governmental system is characterised by the ministers assuming little responsibility for their given field the application of the institution of constructive motion of no-confidence. The bases for the parliament controlling the government are changed as well, because the governing party/parties tend(s) to be in majority in the parliament. The prime minister is not only the head of the government, but that of the central public administration as a whole as well. This system necessitates the support of the Prime Minister's Office, because the preparation of the government decisions requires the availability of duly prepared professional staff.

The third type of government is the **presidential governmental system.** Presidentialization in this case denotes the shift of powers within the government towards the prime minister. I would like to distinguish this term from the term of "presidential republic", where executive powers rest with the head of government. Although the terms are identical, the two concepts are completely different. The presidential governmental system I describe is characterized by heavily centralized public administration. Instead of governmental decisions being taken at cabinet sessions, the prime minister tends to consult his/her ministers personally regarding major issues. The parliament's powers to control the government are limited. The parliament does not function as the primary platform of public discourse, but such role is gradually taken over from the parliament by mass communication channels. Politics are characterized by personalisation, with special regard to election contests, where rivalling party leaders and candidates for head of government tend to compete with each other instead of parties and ideologies. The prime minister is also the president of the strongest governing party, and the role fulfilled by the party and the fraction in the decision making process is significantly diminished as well. This type of system requires a strong Prime Minister's Office with large staff numbers and in charge of performing the tasks of governmental coordination and decision preparation, as well as organising and managing the communication activity of the government and the prime minister.

Of course, the systems above have been described in an ideal-typical manner. Nowadays, certain characteristics, with special regard to the features listed for the third government type, can be observed in every country, regardless of the role, rights and responsibilities of the prime minister, the government or the parliament. Such universal characteristics include, for instance, the shifting of the platform of political communication into the mass communication channels or personalisation. Some European governmental systems are of course very different from what has been presented above, for example in France (see below).

Another accepted system of classification acknowledges no more than two different models of the prime minister's work organisation. According to such classification, the Prime Minister's Office (or the equivalent organisation with another name) may be fundamentally different, both in terms of its function and organisation, depending on the form of government, the composition of the government and the traditions of the given country.[4] Thus, we can talk about a **secretariat-type model** and a **chancellery-type model**. In case of the **secretariat-type model**, the prime minister and the work organisation of the government typically perform "secretarial" duties, including for example, the preparation of government sessions or the checking of whether the decisions made thereat are duly executed, as well as other administrative functions, but not including for e.g., the coordination of the implementation of the governmental programme, expressly professional tasks or the duties of the specialist divisions. In this case, the work organisation of the government certainly does not perform a political function, therefore, its management does not require any political expertise, but an office employing a small number of staff can suffice and may be run by a senior public servant perfectly.

In case of the other model, i.e., the **chancellery-type office**, the prime minister's work organisation does not only prepare government sessions, but also coordinates the operation of the government as a whole, including for e.g., the implementation of the government programme or the performance of tasks of priority from the point of view of the government as a whole, such as governmental communication or the organisation of government events at national holidays. In addition, the powers of the office also extend to the management of the tasks of priority sectors and of course,

4 Among others, Tamás Sárközy and Tamás Horváth M also use this system of classification.

the office also performs the administrative duties characteristic of the secretariat-type office. The chancellery-type office demands considerably more background staff compared to the secretariat-type model and, in view of its duties as a whole, the chancellery must be headed by a "politician", for e.g., a minister or a political secretary of state.

In Hungary, we could see examples of both models mentioned above. During the socialist era, the secretariat-type model was realized, whereas after the change of regime, a gradual shift towards the chancellery-type model commenced. By 1998, the Prime Minister's Office was obviously run according to the chancellery model.[5]

It is surprising how far the public law traditions of the Prime Minister's Office go back in time in Hungary.[6] The background staff supporting the leader of the country appeared in the 12th century for the first time, with King Béla III establishing the central administration of the kingdom called the chancellery. Although this institution died out during the following centuries, it reappeared in Hungary after the 1867 Compromise under the name "the Office of the Prime Minister" (Miniszterelnökség). The responsibilities of this office resembled those of the Prime Minister's Office of our days at that time already. The Office of the Prime Minister was in charge of administrative duties related to government sessions, the coordination of the departments and the management of the press and PR affairs of the government. The Office of the Prime Minister was headed by a secretary of state, who performed exclusively an administrative, rather than a political function, therefore, he could fill in his position regardless of changes of government. The next major change in the history of the background staff of the prime minister occurred in the early 1950s. During the socialist era, the Office of the Prime Minister not only lost significance, but was renamed as well. The government was transformed into the Council of Ministers, and the Office of the Prime Minister was called Secretariat of the Council of Ministers. But before presenting this era, let me shortly describe the period between the two world wars.

The first free elections following the change of the political system in Hungary resulted in the establishing of a coalition government incorporating 3 right-wing parties. József Antall, the president of the largest coalition party, MDF (Hungarian Democratic Forum) was elected Prime Minister. Subsequent to his death on December 12, 1993, his office was taken over by the then Home Secretary Péter Boross until the end of the term (July 15, 1994).

THE ANTALL-BOROSS GOVERNMENT (1990-1994)

The experts on the topic have not reached an agreement concerning the evaluation of the Antall and the Boross governments. According to one standpoint, the system realized in Hungary following the elections in 1990 was prime ministerial government and resembled the German chancellery system.[7] According to the other standpoint, although the conditions for prime ministerial government were granted, the system realized in Hungary during the first term could rather be evaluated as ministerial government. The cabinet government characteristic was reinforced by József Antall establishing a government consisting mainly of the leading politicians of the coalition parties, thus ensuring the political unity between the government and the parliamentary majority.

During the first term following the change of regime, the Prime Minister's Office (MEH) was functioning rather as the work organisation of the government than that of the prime minister, with its staff outnumbering the background staff of several Western European heads of government at that time already.[8]

Prime minister's offices tend to be run by the application of one of two traditional structures:

"According to the first solution, the central body of the government is only in charge of the duties of the governmental secretariat, including the preparations for meetings or the coordination and control of the implementation of the decisions. In this case, the management of the central body

5 Source:A központi közigazgatás az EU-csatlakozás tükrében.Editor:Horváth M. Tamás. Hungarian Institute of Public Administration, Budapest, 2004

6 Fehér Zoltán:A minisztériumi feladat- és hatáskörök, valamint a háttérintézmények.In.: Magyar Közigazgatás 8/2000, pp. 457-470

7 Kardos Dániel:A Miniszterelnöki Hivatalról.In.: Parlamenti Levelek 6/99 pp 13-18

8 E.g.:Dánia – Körösényi:A kormányzati rendszer tíz éve, In.: Magyarország évtizedkönyve.(1998), pp. 418-434

does not require political power, and the position is typically filled by a senior public servant. In other cases, the prime minister's staff is responsible for the co-ordination of governmental operation and enforcing the aspects of the government as a whole, as well as the management of inter-sectoral tasks of prime importance in terms of governmental operation. In this solution, the body acting as the central body of the government is headed by political players."[9]

The Hungarian office was closer to the secretariat model both before the change of regime and upon its re-establishing in 1990, but it was quickly and dynamically developing towards the second model already during the first term. However, no spectacular reinforcement of the role of the Prime Minister's Office was seen during the period from 1990 to 1994. This could be explained, among other reasons, by tensions between the governing parties and within the parties, the quickly diminishing support of the governing parties and the early death of József Antall.

The secretariat nature of MEH was reinforced by the fact that during the Antall government it was led by a secretary of state in charge of public administration[10], who was not a politician, but a public administration expert.

As for its function, MEH consisted of 3 major divisions, and this structure was carried on from 1990 to 2006. These three major units were as follows:

1. The *prime minister's cabinet* comprising the prime minister's work organisation in the narrow sense of the word. The cabinet office was relatively independent within MEH and headed by one of the closest colleagues of the prime minister, in the position of honorary secretary of state. During the Antall regime, the cabinet office comprised among others the personal secretariat, the groups of advisors and the officers. Up to its dissolution in 2006, the cabinet office was responsible for organising the programmes, managing the press affairs and providing for the professional preparation of the head of government, thus playing an extremely important role in the life of the prime minister.

The Antall government established the system of offices within the cabinet office. The offices set up in eight fields were in charge of keeping contracts with departments, social organisations and parliamentary committees and assisting and controlling the precise implementation of the governmental programme by the departments. Moreover, they forwarded the prime minister's requests towards governmental organisations. In addition, the offices were responsible for building the international relations of the head of government. However, the system of the offices did not prove to be an effective tool of governmental coordination during the first government term due to the diversity of its tasks and the insufficient number of staff available for performing such tasks.

2. The second major functional unit was the actual *office*. As mentioned before, this primarily functioned as the work organisation of the government during the Antall regime and was in charge of tasks related to the corporate operation of the government and to governmental and public administrative coordination.

3. The third major unit functioned as the collecting place of tasks and bodies which could not be elsewhere classified. The performance of these tasks was supervised and controlled by the prime minister directly. During the period of 1990-1994, these tasks were managed and controlled by ministers without portfolio, political secretaries of state with individual duties and powers and honorary secretaries of state directly. Ministers without portfolio, but even certain secretaries of state had their own secretariats and advisory divisions within the Prime Minister's Office. The delegation of bodies and affairs not elsewhere classified to the Prime Minister's Office generated uncertainties regarding the profile of the institution, which continued presenting a problem during the subsequent government terms as well.

Following the death of József Antall, MDF did not have the slightest chance to govern the country for another term. The 1994 elections were won by the Hungarian Socialist Party (MSZP) with significant majorities, nevertheless, the leadership of the party decided for coalition government and MSZP formed a coalition government with the liberal party Alliance of Free Democrats (SZDSZ). The new government presented a new trend in the development of the Prime Minister's Office as well.

9 Békefi Ottó:Békefi Ottó: A Miniszterelnöki Hivatal feladatai, szervezete és szerepének változásai a kormányzati munkamegosztásban. In.: Központi közigazgatás 2004; pp. 173-191

10 From 1990 to 1994, the Prime Minister's Office was lead by József Kajdi.

THE HORN GOVERNMENT (1994-1998)

The Horn government continued with the ministerial government model established during the previous term, but started leaning towards prime ministerial government during the term. The ministerial government characteristic was reinforced by the fact that Prime Minister Gyula Horn followed a traditional political career path and his person was closely linked to his party, however, several factors indicated the beginnings of the personalisation of politics and presidentialization.

The Prime Minister's Office became the major means of presidentialization. Gyula Horn made several attempts at strengthening the Prime Minister's Office, but the coalition partner used every possible means to balk such attempts in fear of the tipping of the balance of the coalition. Nevertheless, MEH was reinforced in certain respects, particularly in terms of its function of serving the prime minister.

Just as during the previous term, the Prime Minister's Office was headed by a secretary of state in charge of public administration.[11] Although Elemér Kiss was no personal friend of the Prime Minister, they were in confidential working relationship with each other.

The Horn government created the conditions and legal background for the Prime Minister's Office to be led by a minister (with the public administrative reform concept of 1996). The role of MEH within the government system would have been reinforced to a major extent by MEH being placed on equal level with other departments, however, coalition party SZDSZ objected to such step persistently, and the ministerial level management of the Prime Minister's Office could not be realized until the subsequent term.

Just as during the first term, the Prime Minister's Office incorporated the prime minister's cabinet office, which was led by a political secretary of state. It was in charge of the supervision of civil secret services and the handling of affairs related to national and ethnic minorities and Hungarian minorities living in neighbouring countries as well. In 1994, the coordination of numerous professional political fields, including youth policy, policy of religion and policy of science, was delegated to the Department of Culture and Public Education under the control of the Alliance of Free Democrats, but all of the three fields were referred back to MEH by 1996. These individually managed affairs strengthened the role of the prime minister, as the persons in charge thereof (political secretaries of state, honorary secretaries of state, government commissioners, ministers without portfolio) were under the direct control of the prime minister.

In addition, privatisation and bank privatisation, the issue of the world trade fair, the modernisation of the public administrative system or the reorganisation of steel industry in Borsod County were also delegated to the Prime Minister's Office for periods of various lengths. The affairs related to Lake Balaton or the Danube River also belonged to MEH and were managed under the supervision of a political secretary of state. Although numerous affairs were delegated to MEH with regard to their prime importance, just as during the previous term, the great majority of the issues were referred to MEH on the grounds that they could not be integrated into any other department.

The Horn government could not significantly increase the influence of the Prime Minister's Office on decision preparation. Similarly to the previous term, the Prime Minister's Office received all of the proposals during the conciliation between the departments, but did not get involved in the professional-substantial preparation of the decisions. The Prime Minister's Office still could not influence the decisions, unless via the head of the Prime Minister's Office, who was managing legal and public administrative conciliations between the departments, participated at government sessions and represented the government at the house committee meetings of the parliament.

THE ORBÁN GOVERNMENT (1998-2002)

1998 saw another change in the Hungarian political life: FIDESZ (Alliance of Young Democrats), which evolved to be a central-right civil party from liberal party, defeated, with the support of the Independent Smallholders, Agrarian Workers and Civic Party (FKGP) and the Christian Democrats (KDNP), the Hungarian Socialist Party, expected to win the elections. In the strongly personalized

11 From 1994 to 1998, the Prime Minister's Office was lead by Elemér Kiss.

election contest coloured by new elements, FIDESZ, identified with the name of Viktor Orbán, could present an alternative to MSZP, which seemed to be unable to respond to new challenges.

Fidesz executed comprehensive governmental and institutional reforms, as the presidential government realized during the Orbán regime required a totally different background compared to the previous regimes. Viktor Orbán developed his governmental model in reliance upon, and adopting elements found useful from, both the German and the English models. The organisation of the Prime Minister's Office was converged to the German chancellery[12], but resembled the British model in numerous subfields, including governmental communication.

After the change of the political system, three principles were enforced in the internal governmental structure (the prime minister's principle, the cabinet principle and the principle of appointing ministers in charge of their field), based on the German model. During the period from 1 998 to2002, the first principle dominated at the expense of the other two principles.

Thus Viktor Orbán gained a special role, similarly to the German chancellor, however, he did not settle for changing the political trend of the government, but wanted to enforce his ideas directly in the decision-making system within the departments as well. Therefore, he did not grant relative sovereignty to the departments according to the German model, but rather tried to follow the German model and exercise absolute power in the government.

The structural changes in the Prime Minister's Office basically served two purposes: to reinforce the Prime Minister's Office as the work organisation of the Prime Minister and the body responsible for effective governmental communication on the one hand and to establish a more transparent organisation and to clean the profile of MEH on the other hand.

In the first part of the term from 1998 to 2002, MEH functioned as one of the major tools of concentrating the prime minister's power, both in governmental coordination and decision preparation. However, by the end of the term, Viktor Orbán tended to make governmental decisions by relying upon his office staff[13] and his informal advisors[14] exclusively, as a result of which governmental coordination became centred in the hands of the head of government, rather than MEH. The political weight of the Prime Minister's Office diminished considerably within a short period of time, which affected the relations between the Prime Minister's Office and other departments as well. Viktor Orbán promoted the chancellery-type restructuring only as long as he needed the Prime Minister's Office. I see this as a serious mistake, because the failure to complete the restructuring process and leaving the Prime Minister's Office to its own resources resulted in the fact that, by the end of the government term, work slowed down or came to a halt in numerous fields, which, though indirectly, also contributed to FIDESZ losing the elections.

During this term, MEH was directed by a politician minister[15], who represented the government at the house committee sessions of the Parliament and negotiated matters of dispute with the heads of the parliamentary fractions. The position of the secretary of state in charge of public administration continued existing, but with a considerably weaker role, with special regard to decision preparation.

The number of government commissioners and ministers without portfolio was reduced significantly during the Fidesz regime, but the number of political secretaries of state and the fields entrusted to them were continuously changing. For example, the newly established department of MEH, the Governmental Strategic Analysis Centre was run under the supervision of the general political secretary of state and it was in charge of elaborating the long-term strategy for the government.

The Prime Minister's cabinet continued functioning as the work organisation of the Prime Minister, in the strict sense of the word. The cabinet was directed by the head of the cabinet who was in confidential relationship with the Prime Minister. He was the head of the Division of Protocol and PR, which was in charge of organising the prime minister's programmes, as well as the personal secretariat and advisory bodies.

12 Even the name was adopted, what more, the minister leading the Prime Minister's Office was officially called chancellery minister.
13 The Cabinet Office at the Prime Minister's Office
14 Most of the advisors of Viktor Orbán comprised the inner core of the party who he was on friendly, confidential terms with.
15 Between 1994-1998, the Prime Minister's Office was headed by "chancellery minister" István Stumpf.

The offices may also be regarded as new organisations, because although they existed within the cabinet office during the first two terms as well, they gained importance during the period from 1998 to 2002. During this period, the five mirror offices[16] established became active participants of governmental coordination, decision preparation and decision-making. They expressed their opinion about the proposals from both a professional and a political point of view, supervised and assisted the departments in implementing the governmental programme, informed the prime minister and the chancellery minister about the work of the departments and channelled the requests, demands and decisions of the head of government towards the departments. They were under the control of the secretary of state in charge of public administration at the Prime Minister's Office. The offices mainly consisted of experts, as a result of which political aspects were not taken into regard to a sufficient extent during the work. To resolve such a problem, four political secretaries of state were appointed to supervise the offices.

The establishing of an independent communication department within MEH represented another novelty compared to previous terms. In contrast to its predecessors, the Orbán government realized and tried to make use of the opportunities presented by the media and mass communication. The newly established General division of Press and Information was controlled by the government spokesman acting as the political secretary of state in charge of communication.

Despite the unusual extent of concentrating the prime minister's power, Viktor Orbán did not manage to stay in power. The 2002 elections again brought about a change of government, which, as before, resulted in a repeated restructuring of the Prime Minister's Office.

THE MEDGYESSY-GYURCSÁNY GOVERNMENT (2002-2006)

In 2002, the MSZP-SZDSZ coalition regained power. Unlike his predecessors, Péter Medgyessy was nominated to the position of prime minister as non-partisan member. He was finance minister before the change of the political system (1986-1987) and during the last 2 years of the Horn regime. In his campaign, Péter Medgyessy promised several welfare measures to his voters, but such promises could be kept only at the expense of generating considerable deficit in the state budget. It was poor economic indicators which hindered Péter Medgyessy from completing his 4 years' term. In August 2004, the coalition parties removed him by a constructive motion of no-confidence and elected Ferenc Gyurcsány to be Prime Minister.

Péter Medgyessy did not change the structure of the Prime Minister's Office radically, but tried to return to the practice applied under the Horn regime in several respects. MEH continued being led by a minister, however, the responsibilities and authorizations of the Office changed and its powers increased in terms of public law or public authority.

The earlier positions of ministers without portfolio and government commissioners were abolished, though only temporarily, and the number of deputy secretaries of state was also regulated by Government Decree[17], in the interest of cleaning the profile. The Government Decree limited the number of deputy secretaries of state in the Prime Minister's Office to six. The numerous remaining, newly arising and re-delegated responsibilities were managed by political secretaries of state and political secretaries of state acting as government commissioners. The considerable increase in the number of political secretaries of state did not facilitate the operation of MEH. Several opposing political centres evolved within the Prime Minister's Office, which resulted in the increasing emergence of lobby interests.

The Governmental Strategic Analysis Centre (STRATEK) continued existing within the Office with its form and responsibilities almost unchanged. Although the Offices were dissolved, their tasks were delegated to three general divisions[18] lead by a deputy political secretary of state in charge of a field almost unchanged. However, the relationship between MEH and the departments

16 The five mirror offices (with 2-3 departments assigned to each): Office for Economic and Financial Affairs; Office for Agricultural Sectors, Environment and Infrastructure; Office for Home Affairs and Justice; Office for Social Policy Affairs and Office for Foreign and Defence Affairs

17 Government Decree 1133/2002 (VIII 2) on the maximum number of deputy secretaries of state to be appointed in the departments

18 Social Policy General division, Economic Policy General division, Production Policy General division

changed significantly following 2002, as the Prime Minister's Office lost a lot of its political weight and ministerial type government was promoted.

In the beginning, the cabinet office serving the prime minister was run with a small number of staff and a low rate of efficiency, therefore the head of government decided to reorganize it in early 2003: the specialist general divisions functioning as the successors of the offices were reallocated to the cabinet office, and several new organisations of a certain degree of independence evolved, such as the secretariat of public relations. Thus the cabinet office of the prime minister with the largest power and staff of the last 16 years was established.

However, Péter Medgyessy had no more chance of rationalizing the work and structure of the Prime Minister's Office. In September, 2004, he was replaced in his position by the Sports and Youth Minister of his government, Ferenc Gyurcsány.

After taking office, Ferenc Gyurcsány effected only careful changes in the government and Prime Minister's Office inherited. Certain tasks (equal opportunities, youth and family affairs, policy of religion) were outsourced from, whereas other tasks (sports, EU integration) were delegated to, the Prime Minister's Office.

The period from 2004 to 2006 saw no considerable structural changes other than listed above. It was the governmental communication centre which was primarily affected by restructuring and reorganisation, especially as elections were looming ahead. The Public Procurement and Economic Directorate of the Prime Minister's Office was also reorganized and the Central Service General Division was established, which was responsible for tasks related to public procurement and fundamental tasks required for operation.[19]

THE SECOND GYURCSÁNY GOVERNMENT (2006-2009)

This was the first time for a government to be re-elected in Hungary since the change of the political system. After winning the elections, Ferenc Gyurcsány, who was again leading an MSZP-SZDSZ coalition, decided to bring about significant reforms.

The re-elected head of government effected significant measures of restructuring not only in his government, but in public administration as a whole as well, which affected of course the Prime Minister's Office as well. The prime minister reduced the number of departments and ministers (from 17 to 12) and state leaders drastically. Pursuant to Act LVII of 2006, only political secretaries of state and secretaries of state in charge of their field were permitted to continue working in the individual departments, in numbers definitely minimal compared to earlier staff numbers (the position of secretary of state in charge of public administration was abolished).

The number of staff working in public administration was also reduced, and nearly 100 employees were dismissed only from the Prime Minister's Office. The reallocation of tasks also affected the Office. In light of profile clearing, the Gyurcsány government reallocated the scopes of duties and background organisations of, as well as the bodies supervised by, the various departments. On the one hand, the Prime Minister's Office lost control of numerous fields, such as nationality and ethnic minority affairs or regional development, whereas on the other hand, other fields, such as coordination against organised crime, were delegated to the Office.

The drastic cutting of the number of the secretaries of state increased the powers of the minister leading MEH and their role in governmental coordination significantly, as the fields previously supervised via political secretaries of state were now under his direct control. Such fields included the Central Service Directorate (government procurements, maintenance), the Governmental HR Service and Public Administration Training Centre (i.e., the human resources organisation) and the Governmental Economic and Social Strategy Research Institute ECOSTAT. Up to 2007, the management of civil national security services was also supervised by the minister (in 2007, this duty was delegated to a minister without portfolio).

One of the most important changes made to the Prime Minister's Office in 2006 was the dissolution of the Prime Minister's cabinet. Such step resulted in the distribution of the specific tasks of

19 Almost all supply duties were delegated to the Central Service General Directorate, from technical duties to watering plants.

serving the prime minister between the official units: the tasks related to governmental coordination and the strategic part of governmental work were delegated to two different secretaries of state. They were now in charge of tasks previously performed by Offices, such as monitoring the implementation of the governmental programme, discussions with the departments and liaison between the prime minister and the departments.

Although the dissolution of the cabinet office increased the influence of the head of government on the organisation as a whole, the fragmentation of the tasks deteriorated the quality of work, which gave rise to the re-establishing of the cabinet office in 2007.

After 2006, the major forum of preparing governmental decisions became the Meeting of the Secretaries of State. The Meeting of the Secretaries of State was chaired by the secretary of state in charge of the strategic control of governmental work. The experts of the departments also played a significant role in decision preparation and the meetings of the secretaries of state were preceded by professional political consultations attended by the experts of the departments.

The lack of consistency in the public administrative reform is well reflected by the fact that the initial savings measures were followed by an ongoing growth of the number of secretaries of state in the government. For example in 2007, the secretary of state heading the prime minister's cabinet was added to the system as the fifth secretary of state, who, unlike the other four secretaries of state, had to report to the prime minister directly, rather than the minister leading the Office. In addition, the number of ministers without portfolio and the assisting secretaries of state also showed a continuously growing trend.

In 2008, SZDSZ stepped down from the government due to the failure of the healthcare reform. The second major blow on the government of Ferenc Gyurcsány, who had suffered a substantial loss of popularity since his re-election, was the economic crisis which started at the turn of 2008-2009. His party did not trust him anymore as a person capable of managing the economic crisis. Just as against his predecessor, on April 14, 2009, MSZP filed a motion of no-confidence against Ferenc Gyurcsány and elected Gordon Bajnai to be Prime Minister on the same day.

Gordon Bajnai joined the government of Ferenc Gyurcsány as a non-partisan businessman and was appointed to control the National Development Agency in charge of distributing the EU funds. Gordon Bajnai agreed to fill the position of head of government only for one year, i.e., until the next parliamentary elections, and exclusively in the interest of managing the economic crisis and improving the economic situation of the country.

THE BAJNAI GOVERNMENT (2009-2010)

During the Bajnai regime, the Prime Minister's Office was entrusted with the new task of the central coordination of crisis management, thus the Prime Minister's Office underwent another profile cleaning, however, no considerable restructuring.

THE 2ND ORBÁN GOVERNMENT (2010-)

In 2010, the Fidesz-KDNP coalition gained a 2/3 majority in the Hungarian parliament. Such majority granted the coalition parties freedom to modify the most important Acts, as well as the Constitution. No previous government had had such authority since 1990. Just as in 1998, the coalition elected Viktor Orbán to be prime minister.

The 2nd Orbán government commenced restructuring measures affecting both the governmental and the public administrative system right after its election.

The restructuring of the governmental structure included the dissolution of the Prime Minister's Office in the form as it existed at the time (MEH). Its duties were taken over by the newly established Office of the Prime Minister (Miniszterelnökség) on the one hand and the Department of Public Administration and Justice on the other hand. The duties of the previous prime minister's cabinet were also delegated to the Office of the Prime Minister, certainly including managing the press and organising the programmes of Viktor Orbán, which incorporated the prime minister's advisors and chief advisors as well. Similarly to the previous cabinet, today's Office of the Prime Min-

ister is responsible for managing the personal affairs of the prime minister, keeping contacts with the government, the parliament and parliamentary fractions supporting the government, advice in foreign, security and national policy affairs, organising the programmes of the prime minister and managing the press of the prime minister.

The Prime Minister's Office incorporates the cabinet and secretariat of the general deputy of the prime minister, as well as the related general division.

The Prime Minister's Office is led by a secretary of state, who is supervising not only his own staff (cabinet, secretariat), but the National Security Office, the parliamentary, strategic and coordination general divisions and the general division in charge of administrative affairs as well.

The Government Spokesman's Office, organising events related to national holidays and the government secretariat were delegated to the Department of Public Administration and Justice in 2010. Government Decree 212/2010 (VII 1) (on the duties and powers of the individual ministers and the state secretary heading the Office of the Prime Minister) discusses the responsibilities of the Department of Public Administration and Justice and the minister leading the department through several pages. Legislation differentiates between duties and powers related to the harmonisation of governmental activity and the professional political duties and powers of the minister.

However, the initial conditions (duties, staff numbers) underwent significant changes already in 2011. In August 2010, the staff numbers of the Office of the Prime Minister and of the Department of Public Administration and Justice were limited to 94 and 1086, respectively, with the latter figure being higher than anytime during the last 21 years. This number was increased several times during the year, and in February 2011, the maximum numbers of staff to be employed by the Office of the Prime Minister and the Department of Public Administration and Justice were 128 and 1144 persons, respectively.

The allocation of the scopes of activities changed in parallel with such trend. Governmental communication, including the government spokesman, internet-based governmental communication and international press relations, has been delegated almost completely to the Office of the Prime Minister during the last two and a half years and a secretary of state in charge of foreign economy affairs was also inaugurated. The said secretary of state, the secretary of state leading the Office of the Prime Minister, the secretary of state in charge of legal affairs and the prime minister's commissioner supervising the implementation of governmental duties are under the direct control of the Prime Minister.

It is certainly difficult to draw a parallel between the governmental structures during previous regimes and the 2nd Orbán regime, as the Orbán government reorganized central public administration and the structure of the background staff of the prime minister to an extent rendering comparison impossible from several respects. As a result of this, the maximum numbers of ministerial staff permitted during the previous governments cannot be compared with current staff numbers, because the scopes of duties and powers of the individual departments have undergone all too significant changes.

The 2nd Orbán government reorganized the well-established structure, duties and powers of the supporting staff of the prime minister as well. When concentrating on the establishing of a Prime Minister's Office of small numbers and a clarified organisational structure, we can say that the earlier chancellery-type body was replaced by a secretariat-type institution. However, the responsibilities of the Office of the Prime Minister go far beyond the scope of duties of a secretariat-type organisation. It might be interesting to consider whether it was possible to restore the previous organisational system, including for e.g., the Prime Minister's Office headed by a minister, in the event of a prospective change of government, or if the possibility of restoring the previous institutional system was contemplated at all in light of the experience gathered during 2010-2014.

CONCLUSION

As we could see in this discourse, the Prime Minister's Office underwent significant development during the centuries. The Hungarian office always tended to follow and adopt international models. Thus, for e.g., during the Horthy regime, a chancellery-type office adopted from Austria was run, whereas in the socialist era, Hungary adopted the secretariat-type office from the Soviets.

As we could see, in 1990, the Office was to be established based on the German model. The first significant changes occurred in 1998, but the Orbán government restructured the office with the intention of further approximation to the German model. After the change of government in 2002, the operation of the system was disturbed by the lack of a clear concept for restructuring the office. Whereas, in certain cases, the structure established in the period from 1998 to 2002 was maintained, attempts were made at returning to the system before 1998 in other respects. However, the government restructuring efforts of 2006 already tended to follow the British model. The Gyurcsány government centralized and subjected to the control of the Prime Minister's Office as many duties as possible. The centralization of government communication and the management thereof in a major organisation followed the English model. In light of the increasing public law powers of the prime minister and the significantly reduced autonomy of the departments, the government system also seemed to resemble that of Tony Blair.

As I have been trying to highlight in my discourse, the last 16 years of the Hungarian Prime Minister's Office have been characterized by ongoing changes and restructuring. Lajos Ficzere writes: "*… changing the organisational structure and the organisational system cannot in itself guarantee the successful realization of public administration reform concepts and ideas; rather, the effective implementation of reform concepts and ideas and the reform of public administration, including central public administration, requires public administrative reform endeavours and organisational-institutional changes which are oriented towards, closely related to and dependent on the tasks to be performed.*"[20]

In connection with the quotation above, let me refer back to what has been said before, i.e. that certain individual scopes of duties were often delegated to the continuously restructuring Prime Minister's Office, because the given duties were given priority during the period in question, whereas in numerous other cases, the duties were assigned to the Prime Minister's Office on the mere grounds that they could not be elsewhere classified. Every government attempted to clean the profile of the office, but in vain. Restructuring cannot be concluded as long as a system is created in which duties cease to be assigned to leaders and organisations, but rather the necessary organisational system is assigned to the tasks logically distributed in advance. However, it is impossible to say at the moment to what extent such a goal has been realized within the current system.

To summarize the foregoing, we can establish that no firm governmental structure has evolved in Hungary since the change of the political system in 1990 (the number, name and responsibilities of the departments and their supporting institutions have changed term by term), and the structure and role of the Prime Minister's Office has not been finalised, either. The duties and structure of the Prime Minister's Office were fundamentally influenced by the fact that the reigning head of government regarded the Office either as a strategic organisation and his own working staff or as some kind of a governmental mogul, water head and "hostile" power centre.

Without voicing any criticism of a political overtone, we can establish that each newly inaugurated prime minister tried to modify the governmental structure, maybe as a sign of distancing himself from his predecessors. Such trend affected the operation of the Prime Minister's Office as well: if the Office was operating with large staff numbers and performing a comprehensive scope of duties, cutting such staff numbers and duties was always one of the first actions of the subsequent government.

We could write a separate study of when, for what reasons and on what grounds the most diverse duties (such as privatisation, property management, religion affairs, governmental IT affairs or the water management of Lake Balaton) were delegated to or outsourced from the Office. Of course, such changes may be explained again with power relations, ambitions to gain power and alliances based on common interests within the given government (governing party – government, government – parliamentary group, coalition partners).

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ENTREPRENEURIAL MANAGEMENT AS A FUNCTION FOR THE IMPROVEMENT OF PUBLIC SECTOR SERVICES

Director **Ladin Gostimirović**, Mr. Sci.
College of Business and Technical Studies, Doboj, Republic of Srpska

Abstract: The current trend of decentralization in transition countries determines the local public sector as the primary holder of a large number of social and economic activities. Considering that through the process of decentralisation, the local community becomes the economic and social framework in which all determinants of economic life live and exist, the local community is viewed primarily as an economic segment, and then as a social framework subjected to numerous changes as well. By imposing such frameworks, while considering the fact that the local community (and its market) is a part of the overall market, this paper intends to show how a local community can become more efficient in its operation helping commercial entities to be more competitive and more efficient through the operation of public sector services of the local community. It is also intended that by creating an entrepreneurial model the institutions of local community will actively support the improvement of business environment of the local community, with the aim of achieving efficiency of the private sector. Studies show that the main reasons for lower efficiency of the public, in relation to the private sector are: organizational differences, bureaucratic procedures and different attitudes toward risk. The creation of an entrepreneurial model based on the process organization, with the support of information technology and assembled teams of experts, produces the necessary conditions to overcome these differences.

By applying entrepreneurial model based on organizational and technological innovations, we can achieve greater efficiency in these institutions. Thus, we can improve the success rate of entrepreneurial and economic activities in overcoming economic and market issues that arise as a result of the inefficiency of the local community institutions, starting with the fact that technological progress should yield good results in the case of public sector services.

Keywords: public sector services, efficiency, flexibility, transparency, entrepreneurial model, innovations, entrepreneurship, networking, teamwork, project organizational structure, information technology.

REFORM OF THE PUBLIC SECTOR IN TERMS OF ENTREPRENEURIAL MANAGEMENT

Nowadays, the ethics of state public services gave way to the public sector management, public goods in this sphere become economic goods, "the state of welfare" becomes "the state of entrepreneurship"[1]. Managerial philosophy, particularly in the public sector has changed the position of the local authorities towards greater fragmentation and pluralism, abandonment of secured and mostly free public services, the introduction of competition. It focuses on ensuring a minimum prerequisites instead of providing services, the principle of paying and receiving services, diverse consumer choice and greater managerial freedom and initiative in this sector. The drivers of these changes were changes in the environment - the structure of the economy, the attitude of the public towards the public sector, the growing financial constraints and the rise of monetarist orthodoxy. Traditional diversity of these sectors is erased.[2]

The introduction of market principles has exposed the public sector to the responsibility that no longer takes place only through the political process, but also through the market. All actors in

1 Вукотић ,В., Предузетничка економија и транзициона привреда у зборнику:"Предузетничка економија", Економски факултет Подгорица, Подгорица, 2002, p. 14
2 Rose, A., Public Sector Management, Prentice Hall - Financial Times, 2003, p. 70

the public sector are no longer solely responsible for complying with the procedures, but also for the results. According to the model of private sector, in which managers are accountable to stakeholders, where results are clearly measurable, but also more complex, and a network of stakeholders dispersed , the basic principle of accountability is a democratic parliamentary control.

The introduction of managerial philosophy in the public sector includes ten principles: [3]

1) government must be a catalyst for the introduction of new organizations for providing services;
2) citizens must have the right to transfer the control from bureaucrats to the community;
3) government should encourage competition among service providers;
4) government should follow the mission, not rules and regulations;
5) the results of government should be assessed according to performances, rather than inputs;
6) the focus should be on citizens, consumers of services, not on bureaucracy;
7) government and the public sector should become an enterprise that earns and not just spends money;
8) government should be proactive, not reactive, it should prevent, rather than cure problems;
9) government should be decentralized and it should promote participatory management;
10) market mechanisms must take precedence over the bureaucratic;

Kanter, R. M. has defined this as " post-entrepreneurship ": [4]

	BUREAUCRACY	POST-ENTREPRENEURSHIP
Organization	Focused on the position and status	Focused on individual authority based on knowledge
Tasks	Repetition and routines	Creativity and innovation
Orientation	Towards rules	Towards results
Rewarding	Status	Results and creating values
Informing	Formal structures, limited information	Communications and coalitions
Style	Mandate of decision-making, limitation of liability	Network development
Objective	Ownership and control	Changes and innovations

The contribution of managerial philosophy in the public sector is reflected in:

1) orientation to empowerment and personal responsibility, rather than hierarchical decision-making;
2) emphasis on quality, not quantity;
3) focus on the user, not the service provider;
4) emphasis on results, not on internal procedures;
5) orientation towards contractual and market relations, and not towards professional assessment;
6) focus on innovation and diversification, rather than stability and conformity.

To this end, the British "Local Government Management Board" established in 1996 the following general principles of organization of local government:

1) smaller management teams in corporations;
2) reliance on experts in the decision-making process;
3) decentralization and the introduction of multi-functional organization;

3 Idem, p. 100
4 Kanter, P. M., *The Social Sector as Beta Site for Business Inovation*, According to, Rose, A., *Public Sector Management*, Prentice Hall - Financial Times, 2003, p. 104

4) organization of legal entities which will provide principles, "value for money" and "quality of service";
5) partnerships and alliances with various organizations.

One possible model to meet these principles is the introduction of "direct service organization", which is based on a functional decentralization.

Advantages and disadvantages of this model are depicted in the following figure:

Advantages:

– large enough to recruit competent managers;
– large enough to affect the realization of its objectives;
– economies of scale;
– reliance on the flexibility of staff;
– facilitated the identification and allocation of costs of direct services;
– facilitated the allocation of resources.

Disadvantages:

– overriding importance in the affairs of local government;
– possible duplication of functions and people;
– introduction of a new organization disturbs the existing structure;
– difficulties in recruiting managers;
– difficult coordination of dispersed and separate functions.

In order to balance the gains and costs of such an approach, it is necessary to: improve teamwork and work commitment, strengthen communication, transparency and open-mindedness; introduce continuous quality training, provide additional time for monitoring and evaluation; increase responsibility; introduce management information systems, establish a climate of trust and communion of everybody in the management team.

In 19991, Boyne, G. identified three possible models for the organization of local government.[5]

The central values of an organization in the public sector must be: the user is the primary goal, quality of service, staff development, innovativeness, value for money, flexibility, achieving the stated goals, high performance. Such organization must be: 1) responsible, 2) focused on the user, and 3) efficient, and all employees must be guided by the principles of professionalism, responsiveness, initiative, determination and entrepreneurship. To create and maintain such an organization, environmental challenges must be acknowledged, as well as the interests of politicians and key stakeholders, and the demands of people in the local community. Changes cannot be achieved overnight, but gradually, so it is necessary to change the organizational culture.

In order to achieve such changes, it is necessary to meet the following requirements:[6]

– Efficiency: efficient spending of taxpayers' money;
– Economy: the lowest possible costs;
– Natural environment: protecting the environment;
– Effectiveness: the impact of the public sector as a whole has to be positive;
– Evaluation: the public sector must be subjected to assessment and accountability;
– Ethics: the need to establish and maintain standards of conduct;
– Market: the public sector has to respond to the demands of citizens who are the consumers of services.

5 Boyne, G., et. al., *Evaluating Public Management Reforms*: Principles and Practice, 2003. According to: Rose, A., *Public Sector Management*, Prentice Hall - Financial Times, 2003, p. 132
6 Rose, A., Public Sector Management, Prentice Hall - Financial Times, 2003, p. 264

CHALLENGES OF EMERGING TRENDS FOR THE LOCAL PUBLIC SECTOR

Modernization of public sector services, professionalization of human resources in providing fast and reliable public services creates the preconditions for economic development, and it is also the assumption of a better standard of all citizens. Public sector and its services with a high level of reliability, open-mindedness and transparency will create preconditions for a better business environment for foreign investments, and accelerate the path towards European integration. Measured by the share of total public expenditure in GDP, Bosnia and Herzegovina and The Republic of Srpska, as well as neighboring countries, have a large public sector reflecting the social needs for the services it provides. Regardless of the specifics that characterize our reality - numerous socially vulnerable groups and economically viable activities where the significant presence of the state is still expected, continuous reduction in the size of the public sector should continue to be one of the aspirations.

Initiatives can be taken that will radically change the way government does its business - how the agencies operate and how their employees work within the agencies, or the way they collaborate with other agencies and suppliers. Although there have been many problems with the reengineering of business operations, the government becomes a breeding ground for new technologies and thus allows the reengineering of business initiatives. The essence of such initiatives could be a shift from bureaucratic multistage verticals to evenly distributed team structures and horizontal processes of integrated government.

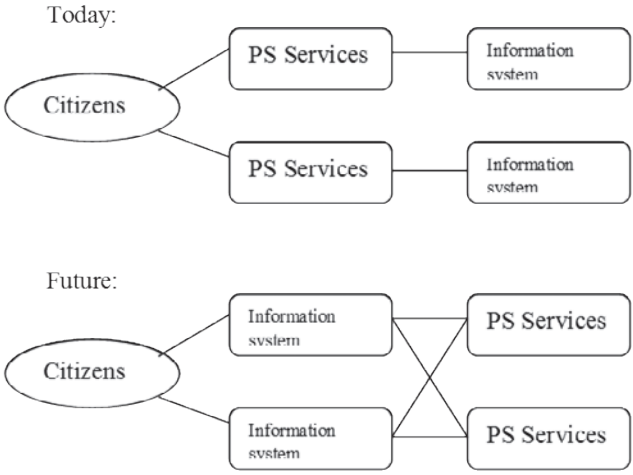

Figure 1. Impact of information technology on the development of public sector services

It is necessary to make technological changes, computer literacy and systematic introduction of entrepreneurial behavior among all employees in the sector of public services. Of particular importance are the standards for networking of computer technology, and therefore, the standards for organizational networking. Many modern public services implement communication via e-mail available to all their segments, as a crucial prerequisite for network-connected administration.

The result could be more flexible bureaucracy, with fewer levels of management on a vertical line. Databases could be equally used, rather than duplicated. Information could flow much faster, bottlenecks created by unnecessary paperwork could be eliminated, and government officials could make decisions today, not tomorrow. Expert and knowledge-based systems could eliminate the tedious procedures for granting licenses and replace them with appropriate processes that provide

clear guidelines and use new technologies to support themselves. Simple operations can be restructured to meet the needs of users. It is possible to make a transition from a system in which people are expected to abide by the rules outlined to those systems in which they are expected to achieve results. Those who work in the front rows could be empowered through technology that gives them power, in order to make more independent decisions and respond to the problems and needs of consumers on the spot.

THE NECESSITY OF MODERNIZING THE LOCAL PUBLIC SECTOR

Organizations operate in an environment where the conditions often change, resulting in the necessity of change within them. There are a number of factors that encourage organizational change. Competition, globalization, customer demands and costs can be singled out as the most important.[7] To respond to these pressures, organizations adapt their structures with their teamwork and with an emphasis on human resource management. The organization of public administration, as well as the entire public sector, is also subjected to changes that are caused by several factors.

Public sector services must adapt, so that they could provide answers to the major challenges that are ahead of them, and those challenges are:[8]

– pressures on public spending that are caused by cyclical movements in the national economy,
– seeking for a higher quality of public services,
– competitive pressures which strengthen under the influence of the ideas of efficiency and management services that come from the private sector.

On the other hand, the objective factors that affect organizational changes in the public sector can be systematized as follows:

– changes in scope of activity of certain public sector services,
– development of techniques and technology,
– changes of activities and responsibilities,
– centralization and decentralization,
– personnel changes,
– globalization and integration processes.

As well as other organizations, the public sector and public sector services, should find new ways to interact with individuals and various forms of private organizations.[9] Differentiation and specialization of public sector services is growing, which requires different forms of organizational structures within the public sector. Public administration is rapidly fragmenting, and at the same time it requires more communication between different organizations in the same or different levels. Knowledge and experience are becoming increasingly important for the interaction, while the importance of the formal positions of the established hierarchy decreases.

Globalization means international integration of goods, technology, labour and capital, which, among other things, includes the unification of the international market in a unified space of production and trade, and the emergence of transnational legal framework, while the integration processes of national economies are characterized by connecting countries in order to increase the mobility of factors of production and efficiency by using similar or unique instruments of protection and subsidies, which, among other things, affects the similarity in institutions.[10]

7 Cassidy, E., Ackah, C., "A role for reward in organizational change?"**,** *IBAR*, no. 18, 1997, p. 52 – 63
8 Flynn, N., "The future of public sector management: Are there some lessons from Europe?", The International Journal of Public Sector Management, vol. 8, ed. 6, 1995, p. 59-68
9 Sand, I. J., "Changes in the organization of public administration and in the relations between the public and the private sectors - Consequences of the evolution of Europeanization, globalisation and risk society", 2002, p. 23
10 Škuflić, L., Međunarodna strateška orijentacija i trgovinska politika Republike Hrvatske, Rijeka, Sveučilište u Rijeci, Ekonomski fakultet Rijeka, 1999, p. 21

Consequence of this is relativization of traditionally perceived state sovereignty and approximation of the most existing states to the role of links in the global system. The public sector has to adapt to these processes through organizational changes, in order to achieve uniformity of procedures in the countries belonging to certain integration.

Organizational changes also mean changes in people.[11] Technique of changing the organization comes down to the question of how to change people, their attitudes, habits and values.

Therefore, the ideal structuring of tasks would be the structuring where the technical aspects of a job could be organized into meaningful units, with a defined level of responsibility for each task and for the immediate work group, with satisfactory relationships.

General objectives of organizational changes in public sector are directed towards reducing the scope of public administration.[12] This could be achieved through privatization, by partially replacing the hierarchy with more elastic methods of information processing, orientation to users, decentralization of decision-making and resources, networks of teams, group work, competition between organizational units of the same organization, and by motivating staff initiatives. Therefore, this could be achieved by structuring of organization that is able to learn from the experience, which would result in a higher quality of services with fewer workers needed.

ENTREPRENEURIAL MODEL OF PUBLIC SECTOR

The convergence of entrepreneurial initiative, continuous innovations and adequate organizational structures based on process organization is enabled through modern information technologies and their universal application. In this way, the preconditions for improving the performance of public sector services at the local level are created, with the aim of providing more efficient customer service. The result of these activities should be faster, cheaper and more transparent service, which implies more favourable business climate and creation of environment for new investments, but also the increase of public confidence in local government.

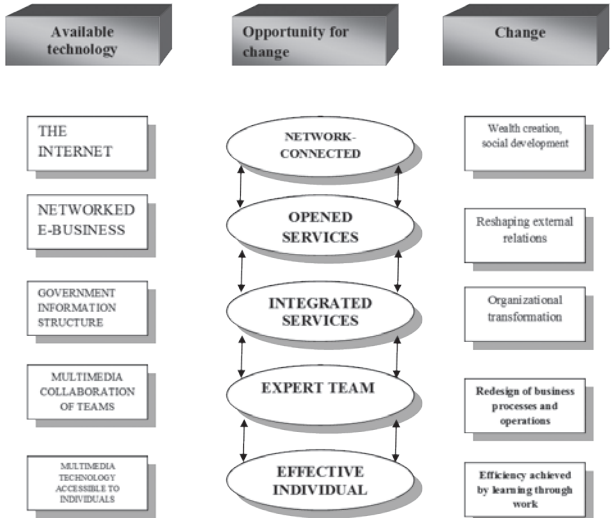

Figure 2 Levels of entrepreneurial model of public sector services.

As Osborne and Gaebler write in the guidebook "Reinventing government", we need the government that will act catalytically – the government characterized by managerial and driving action, rather than the government of closed type; the government that belongs to the community and

11 Brčić, R., Organizacija državne uprave u funkciji djelotvornosti Porezne uprave u Republici Hrvatskoj, Zagreb, Sveučilište u Zagrebu, Ekonomski fakultet Zagreb, 2002, p. 19

12 Brčić, R., Organizacija državne uprave u funkciji djelotvornosti Porezne uprave u Republici Hrvatskoj, Zagreb, Sveučilište u Zagrebu, Ekonomski fakultet Zagreb, 2002, p. 21

empowers the community rather than the government that is only there to serve the community, the government with a goal, which is result oriented and focused on the customer. Governments should, as they say, inject competitiveness in the provision of services; focus on profits, not on spending; move from a hierarchical mode on teamwork and active participation; act preventively, rather than mitigate the consequences.[13]

In the discussions on redesigning the government, academics and the people of broader education have supported the idea that the new information technology is the key in enabling the transformation of the government. But progress has been slow, which corresponds to the speed at which the technology could become a new form of government. Interestingly, the leading role in this, with a few exceptions, has been taken by the government itself, not by its critics and analysts. Such leadership appears at the national, state and local levels, especially in the U.S. and Canada.

1) *Effective individuals.*[14] The use of computers with multimedia content will equip employees in the public sector agencies with the necessary tools to dramatically improve the efficiency of their work assignments and learning. Time saved can be reinvested in creating more efficient individuals. For example, instead of attending lengthy training courses, such progress in terms of professional competence can be integrated into the work of employees and performed at home. Since these tools for learning are of multimedia character, employees learn faster and memorize more information. There are no more disruptive, time consuming, three-day courses to remind employees, but their memory is constantly "refreshed" in an environment in which work and learning take place at the same time, which the use of multimedia provides.
2) *Expert teams.*[15] Individual workstations can be connected in a workgroup environment that uses computer technology from which expert teams would arise. Tools for workgroup collaboration, information handling, time available and decision-making can lead to the creation of new structures based on teamwork and high efficiency. For example, social workers can use technology to save time, the time that can be reinvested in advising clients based on their life experiences, in order to reduce dependence of clients in relation to welfare. This can be achieved by a new division of labour in teams, redesign of business process, and re-training of employees involved in the business process and by a new market positioning in relation to clients.
3) *Integrated services.*[16] Entrepreneurially distributed IT infrastructure, based on specific standards, sets a precondition for the emergence of new organizational structures that are in contradiction with the traditional lines of action of public services. Naturally, services do not operate on their own as separate feudal properties. For many customers who are buying on mortgage for the first time it is a well known frustration when it is necessary to show the officer who approves the purchase of mortgage, that in the last 20 years they have been reliable bank clients. But today's enterprising banks do not treat their customers as people, but as piles of separate accounts while operating via computer networks. Some enterprising governments have begun to think in the same direction. Horizontal connection via computer networks can create such integrated services within the public sector.

There is an increasing need for the change of such approach. For example, in his speech on the organization of government, Marcel Massé, the Canadian minister of intergovernmental relations, observes: "At the moment there is practically no ministry in which problems are solved separately from other ministries or where solutions do not involve more than one of the traditional sectors of government activity. As a result, there is an increasing need for new and more horizontal way to study specific problems and finding solutions. Horizontal coordination is now crucial and requires new mechanisms and new approaches to systems." [17]

13 Osborne, D., Gaebler, T., *Reinventing Government*, Addison Wesley, 1992.
14 See Tapscott, D. The Digital Economy, McGraw-Hill, 1995, p.164
15 Ibid, p. 164
16 Ibid, p. 165
17 See Tapscott, D. The Digital Economy, McGraw-Hill, 1995, p. 165

A widespread information infrastructure also enables new forms of *disintermediation* (while eliminating middle (intermediate) layers, which have multiplied in the services of the public sector). These forms also facilitate *molecularization*, transferring some functions to smaller and more dynamic business units or even to non-governmental organizations.

"We have to think outside the traditional frameworks and think about the destruction of walls that exist between the government and others. In the past we were bound by the traditional lines of demarcation ... we would think "what are the benefits that my agency has of it," rather than "what is the benefit for the users of the government services," says Flyzik.[18]

1) Opened services.[19] Governments in many developed countries have made the implementation of electronic procurement from their suppliers at the local level as well. The documentation required to purchase a fleet of trucks, a giant computer system or to make a building has been converted into a binary code of computers. The requests for proposals are on the websites, instead of piles of paper documents. Similarly, bids are to be submitted to the Internet address. Projects are managed via a computer network that includes the suppliers, and government as well as the buyer. Cash funds are sent to different addresses using electronic systems for data exchange (EDI), while project information become publicly available in an electronic form.

2) Network-connected services.[20] As more and more of human communication, the flow of financial resources, information access and transactions have been made through the Internet, connections slowly fade, not only within the public services , but also between the services and those who have contacts with them. New models have become more evident. Even the new objectives of the government, that is the objectives of public services have become more apparent. Powers can be transferred to the local community to perform the functions that the government has performed poorly in the past. The government connected via a computer network can provide public services for things such as assistance with employment, instead of providing services related to organizational verticals that lead to different levels of the government, dealing with unemployment benefits, social welfare, business counseling, food stamps and similar matters. Agencies that have a practical purpose can be formed and disbanded depending on how economic and social needs demand. Governments, namely public sector services at the local level, can catalyze partnerships based on the network technology and contribute to the creation of wealth. For example, projects can be implemented between services on a regional level without leaving the workplace. Public sector services could produce new processes in which citizens would participate, such as "electronic hearing" to examine possible initiatives of local authorities, "electronic exchange of ideas" on important issues, "electronic surveys" in order to assess views of the public, and encourage the launch of "virtual interest groups" that could contribute to the welfare of society. Representatives of the government could be held to account constantly, instead of every four years. We could, if we want to, build more complete democratic processes-democratic processes that correspond to real time and which require active participation.

CONCLUSION

The organization of public sector services, because of their ability to accept innovations, has led to a sort of collision between the public interest and the efficiency of state property. We note that the state property , as a traditional ownership base of public companies, has been suppressed in favour of private and mixed ownership as quickly as the focus of public interest shifts to the quality and efficiency of public office. Because of the role of government, the public sector has a key role in modernizing the modern economy and society, so that it becomes more competitive and more dynamic, with sustainable development, capable of creating more and better jobs, and at the same time strengthening social cohesion.

18 Ibid, p. 165
19 Ibid, p. 165
20 Ibid, p. 166

In order to raise the quality of services, the users of public services, accustomed to fast and quality services that the private sector provides them, expect the same or higher quality of services in the public sector as well. Vague and unnecessarily lengthy procedures, long queues, impolite staff are more and more criticized by the public. The services of the public sector are expected to be adjusted to individual needs, and their services should be fast and cheap.

Entrepreneurial model has the role of modernizing the public sector. The public sector, especially its services, are faced with the galloping development of information technology, new forms of communication, more demanding and more quantitative needs of service users, spending limits and increased social control. To answer these and many other requirements that are set before them, they need, primarily, organizational and technological changes within the public sector. The central values of the organization in the public sector should be: the user comes first, quality of service, staff development, innovativeness , value for money, flexibility, achieving the stated goals, and high performance. Such an organization must be 1) responsible, 2) focused on the user and 3) efficient, and all its employees must be guided by the principles of professionalism, responsiveness, initiative, determination and entrepreneurship.

The entrepreneurship development is a systematic process, which should be approached with a clear vision and goals. The complexity of this process lies primarily in the fact that it cannot be achieved only by defining rules and procedures, and meeting some of the conditions of development, but by creating conditions for the development of such business climate that will include entrepreneurship in the way of business thinking. The local community should through legislation ensure economic, social and political conditions for the unhindered development of entrepreneurship at the local level. Aspects of the modernization of public services are unavoidable on this path.

The modernization of the public sector services, professionalization of human resources, and providing fast and reliable public services should create conditions for economic development, and they represent an assumption of better standards of all citizens. The public sector and its services with a high level of reliability, openness and transparency should create preconditions for a better business environment for foreign investments, as well as to accelerate the move toward European integration. It is necessary to make technological changes, perform IT literacy and systematic introduction of entrepreneurial behaviour among all employees in the sector of the public services. Of particular importance are the standards for networking of computer technology, and thereby, the standards for organizational networking . These standards affect the convergent model of entrepreneurial behavior. The convergence of entrepreneurial initiative, continuous innovations and an adequate organizational structure based on process organization have been enabled by the use of modern information technologies and their universal application. In this way, the preconditions for improving the performance of public sector services at the local level are created with the aim of providing a more efficient customer service. The results of these activities should be a faster, cheaper and more transparent service, which implies a more favorable business climate and creating an environment for new investments, but also the increase of public confidence toward the local government. These are all reasons affirming citizens as clients of the public sector services.

Respecting the fact that people are not only users of services, but also partners in achieving the common goals of creating more efficient and competitive communities, access to services and their exploitation must be flexible and targeted exclusively to the user. In our entrepreneurial model, this flexibility is reflected in the diversity of ways of providing services, primarily using modern information technology as a tool, process organization structure as a framework and an entrepreneurial approach as the basis for achieving these goals.

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TRANSPARENCY AND CONTROL MECHANISMS IN PUBLIC PROCUREMENT PROCEDURE IN THE REPUBLIC OF MACEDONIA

Attorney at law **Igor Mojanoski**, MA
Skopje, Republic of Macedonia

Abstract: The subject of this work is the system of public procurements in the Republic of Macedonia and the most important remarks aimed at the improved public procurements process in the Republic of Macedonia. Following the remarks the paper analyzes the necessity for changes, which means improving the preventive mechanism and lowering the level of corruption generated by them.

Transparency is the key component to prevent the corruption arising from public procurements procedures in the Republic of Macedonia. There is insufficient transparency and accountability on behalf of the state institutions with regard to public spending in public procurements procedures. For example, annual plans on public procurements are not available to the public and they are frequently altered, while the contracting authorities fail to submit data on all signed contracts, etc.

In addition, the contracting authorities often use inadequate and manipulation- prone criteria for the selection of the most favourable bid and have broad discretionary powers in the contract-awarding process. In the absence of legally stipulated deadlines it takes too long to perform a bid-assessment and take decision on the selection of the most favourable bid, which results in unnecessary delays of the procedure as a whole. Moreover, there is a low level of supervision over public procurement procedure implementation and on the realization of public procurement contracts.

In this work, we analyze and will present part of the research results from the project implemented in 2008 and 2009 on the territory of the Republic of Macedonia. Several parameters indicate the problems mentioned above. For example, insufficient transparency and accountability on behalf of the state institutions is as high as 40%, decisions on annulling the procedure was adopted in 25% of monitored procedures, bank guarantees were required in more than 60% of procedures, etc.

Keywords: public procurements procedure, transparency, accountability, inadequate criteria, contracting authorities.

THE CONCEPT OF PUBLIC CONTRACTS

Definition of administrative contract. Distinguishing administrative from civil contracts

For better understanding and study of transparency and control mechanisms in the public procurement process in the Republic of Macedonia it is necessary to define administrative contracts and to explain their legal nature and separate characteristics.

An administrative contract is a two-pronged legal relation in creation of which both the public administration and a private entity participate, from which both parties derive rights and obligations aimed at simultaneously achieving public interest and economic impact, when the public interest is of dominant importance.[1] Furthermore, in an administrative contract public and private interests are linked through the mechanism of the contract, a contract in which one of the contracting parties is a public body, and the other party is a private individual or a company.[2] This issue is dealt with in the text below.

1 Features an administrative agreement according to Prof. Dr. Ana Pavlovska - Daneva: An administrative contract as a special type of contract has the following features: one of the contracting parties is always the public administration, presence of degrading clauses- elements that cross borders of general treaty law, the objective achieved by a contract is a public interest and administrative judiciary, which is responsible for the resolution of disputes.

2 Necessity of a separate regulation of public contracts, legal systems clearly express, such as in France, which developed a special kind of administrative contract (contrat administratif) as the primary means of administrative action which involves cooperation of private individuals or companies.

The role of administrative and judicial authorities in administrative contracts implementation

Administration as a contracting authority in public contracts has the following prerogatives:

1. Control over the enforcement of the administrative contract

Administration as a public interest protector has the right to supervise the implementation of the contract, by which it has an influence on its enforcement. Although the administration is a contracting party it has the right to issue official guidelines in order to fulfill this aim.

2. Imposing sanctions on the private contractor

a) **Pacta sund servanda in favor of the public interest,** b) Money sanctions: penalties and damages**,** c) Involuntary sanctions: substitution and sequester- a privilege prior to decision making.

3. Unilateral modification and premature termination of the contract

In fact, this is the enforcement of **rebus sic stantibus** in favor of the public administration: a) Unilaterally changing of the contracting terms, for the purposes of public service b) Unilateral premature termination of the contract, *in order to protect public interest*.

In relation to jurisdiction, administrative contracts disputes are in competence of the administrative judiciary in the form of a dispute of full jurisdiction. There is one particular characteristic: the dispute takes place in two (reverse) directions: act of an individual versus administration, as well as an act of the administration versus its contractor.

THE CONCEPT OF PUBLIC PROCUREMENT UNDER MACEDONIAN LAW OF PUBLIC PROCUREMENT

Definition of a public procurement contract

A public procurement contract shall mean a written contract of financial interest, including utilities contracts, concluded between one or more economic operators and one or more contracting authorities on the one hand, and one or more economic operators on the other, the subject of which is the execution of works, delivery of supplies or provision of services pursuant to this Law.[3]

There are two categories of contracting parties in a public procurement contract. One of them is defined in Part 3 Article 4 in Public Procurement Law and the drafting of a detailed list of contracting authorities is under the competence of the government of R. Macedonia.[4] On the other hand, economic operators mean any natural or legal person or a group of such persons offering supplies, services or works on the market.[5]

The procedure of awarding a public procurement is a procedure carried out by one or more contracting authorities for the purpose of purchasing or acquiring goods, services or works. The term procedure refers to one of the legally prescribed ways for conducting procedure, that is: open[6], restricted[7], competitive dialogue[8], simplified competitive procedure[9], negotiated procedure[10], design

3 *Public Procurement Law*, Public Enterprise Official Gazette of R. Macedonia N.136/2007 and amendments to the law N.130/2008, N.97/2010, N.53/2011, N.185/2011 Art.3 3 1 "hereinafter in the text: PPL"

4 Public Procurement Bureau. „Indicative list of contracting authorities" http://bjn.gov.mk/mk/root/laws/ppByLaw.html (accessed 15.01.2013 r.)

5 *PPL. Art.3 Par.1 P.13*

6 *PPL. Art. 64-67*

7 *PPL. Art. 68-76*

8 *PPL. Art. 77-88*

9 *PPL. Art. 100-104*

10 *PPL. Art. 99*

contest[11], electronic auction[12] and framework agreement[13]. Which procedure will be conducted depends on the value, type and the subject of the procurement and its specifics.

Two basic criteria for selection of the best bid are known in the Macedonian public procurement system. The awarding of public procurement can be done by: *the lowest price* or *economically most favorable bid* (which can be determined by: price, quality, technical and functional characteristics, environmental characteristics, operating costs, accountability, post-sale services and technical support, delivery and performance period or other important elements for tenders evaluation). The contracting authority decides on the need of conducting public procurement procedure.[14] The responsible entity of the contracting authority shall appoint persons or organizational form for carrying out activities related to the preparation and implementation of procedures for awarding of public procurement contract, as well as the implementation of public procurement contracts.

The contracting authority selects the most favorable tender, by making a decision, based on the awarding criteria defined in the announcement for public contract awarding and all requirements according to the tender documentation if the economic operator fulfills the prescribed criteria for determining the qualifications and if its offer is the most favorable.

The contracting authority shall conclude a public procurement contract with the tenderer whose bid has been chosen on the basis of a technical and financial offer. If the selected tenderer withdraws from the conclusion or cancels the execution of the contract, the contracting authority may also conclude the contract with the next ranked bidder. The contracting authority is obliged to keep the documents on which the selection of the best bid is made.

Any person, who has a legal interest in the public procurement procedure or awarding the public contract, including the Attorney General, could appeal against the applied procedure of the public procurement to the State Commission on public procurement.[15]

The above explanation defines the basics of the public procurement system in R. Macedonia: the public procurement contract is concluded between two parties, it is a written agreement, which arises with the agreement of wills in a legally certain procedure, one of the contracting parties is always the state administration, the legal protection is accomplished by the State Commission for Appeals and before an Administrative court in urgent procedure. The public interest is realized in the procedure for the conclusion of a public procurement contract, because the concluded public procurement contract is a public (administrative) agreement.

Parties to contractual relations - contracting authorities and economic operators

The most important feature of a contract is that one contracting party is always the "governmental or public body" (representing the public interest), and the other one is an individual or a company that belongs to the "private sector" of the economy. Article 4 of the Macedonian law on public procurement lists a scope of contracting authorities that conclude public procurement contracts while a detailed list of contracting authorities is prepared by the Government of R. Macedonia through the Public Procurement Bureau of the R. Macedonia. On the other side there are the economic operators, who offer the required goods, services or works to the contracting authorities, as prescribed in Section 2 Article 3, paragraph 1 p.13 in the Macedonian Public Procurement Law.

11 *PPL. Art. 105-114*
12 *PPL. Art. 121-128*
13 *PPL. Art. 115-120*
14 *PPL. Art. 4 Par.1*
15 *PPL. Art. 200*

TRANSPARENCY AND CONTROL MECHANISMS IN THE PUBLIC PROCUREMENT PROCEDURES IN THE REPUBLIC OF MACEDONIA

Furthermore, the text offers an overview of the transparency in the public procurement awarding procedures in R. Macedonia, as well as the analysis of the existing legal framework providing the supervision of the procedure for granting and implementation of the concluded public procurement contract, as a way to control rational spending of the budget resources to supply contracting authorities with the necessary goods, services and works. The key questions are as follows: whether an effective mechanism to control the spending of budget funds is established, which bodies have supervision or control rights and responsibilities and what measures can be taken in the event of detected irregularities and abuses. The term is perceived in a wider context meaning not only legal protection in terms of lodging a legal remedy against the decisions and actions to the procedure for public contract awarding, but refers to protection against possible money abuse of the taxpayers.

The task is to determine the possibility to control the actions during a procedure and how effective that control is in preventing or sanctioning the abuse and illegal operations. The point of interest of the analysis is how much the control is focused on the realization of contents of a procurement contract and whether it is under the agreed manner and conditions. Precisely, this part shows the disadvantages, such as the lack of provisions in laws, vaguely set competencies, but also frequent practical abuses.

The next chapter deals with the general findings, conclusions and recommendations, and a detailed analysis of competencies and practice of the state bodies in the Republic of Macedonia that have or should have some responsibilities in control and monitoring on the spending of public funds (State Audit Office, Public Prosecution Office, State Attorney Office, Financial Police, Public Internal Financial Control and The Public Procurement Bureau, all of the Republic of Macedonia).

Control and protection under the legislation of the Republic of Macedonia- remarks and recommendations

- Most irregularities are identified by the State Audit Office concerning actions that precede or follow the procedure for awarding of public procurement, i.e. in the area of procurement planning and realization of the contract, as a very important stage which is not regulated in the Public Procurement Law.
- Although the Public Prosecution Office receives reports from the State Audit Office for irregularities and abuse of the contracting authorities, it rarely finds the basis for prosecution. In cases when there is reasonable suspicion of a committed criminal act by the contracting authorities, especially in the public procurement procedures, the Ministry of Interior is required to undertake further investigations, but the procedure mostly stops here. By delaying or failing to submit the required data necessary for investigation of illegal actions and spending of the public funds, legal resolution (i.e. criminal procedure) is disabled.
- Although the name of the Law on public internal financial control suggests possible competence of internal auditors and the Public internal financial control department of the Ministry of Finance in determining the irregularities in the financial operations of the contracting authorities, however, the purpose of this law, as confirmed by the current practice is to protect the person in charge of the possible abuses from employees. This means that even if an illegal operation in the public procurement procedure is determined, it will always be handled internally within the authority.
- The public procurement law does not provide criminal (or offense) provisions for the violation of certain provisions of law.
- There is a need for laying down rules that regulate the phases of the implementation of the public procurement contracts, in which abuses are frequent due to the legal gap. In that direction, there is a need for specifying the responsibilities of all state institutions that currently have

some (undefined) competencies in the control of public procurement, and most of all of the State Audit Office and the Attorney General.

- A special type of audit of public procurement should be provided (in the Strategy for development of public procurement, which will be operationalized in the State Audit Law), which will be conducted by state auditors including a need for a certain number of more specialized state auditors for public procurement.
- For greater efficiency and more effective investigative procedures, it is necessary to review the possibility of submitting the copies of the data and the evidence in the cases where irregularities of the financial operations of the contracting authorities are found to the Public Prosecution Office.
- To consider the possibility for employing economists, accountants and other experts specialized in the field of finance, in the public prosecution office which will greatly facilitate and accelerate the procedure after receiving the reports from the State Audit Office. Therefore, the specialization of prosecutors who would take actions only in this type of items is necessary.
- Introducing legal mechanisms, before all sanctions, that would be applied against the Ministry of Interior and other bodies which during the control and investigation do not collaborate with each other, or do not submit the requested information and did not act in accordance with the responsibilities in a certain period.
- The role of the Public Procurement Bureau should be strengthened by including appropriate provisions in the Public Procurement Law, which will prescribe competencies to the Bureau for supervising the procurement process, perhaps not as a classical inspection, but with recommendations and opinions that will be required for the contracting authorities. The Bureau shall also have powers to impose measures for stopping procurement procedure until removing certain noted deficiencies in the public procurement procedure and in the phase of making decision and awarding the best bid.[16]

Legal framework and analysis of the structure and practice of bodies that have competence in controlling the public procurement area

Public Procurement Bureau

The Bureau is established as a state body within the Ministry of Finance as a legal entity. It functions as a single central authority without branches. Its establishment is an important moment in the advancement of the public procurement system which throughout the world is very dynamic and constantly changing.[17]

One of the principal objectives of the Bureau is transparency in public procurement procedures and access to public information.

The entire scope of responsibilities of the Bureau is prescribed in the Public Procurement Law. Thus, the Bureau shall perform the following:

– Monitor and analyze the implementation of the public procurement law and other regulations, the functioning of the public procurement system and has rights to initiate changes for improving the public procurement system;
– Gives opinions on the application of provisions according to this law;
– Provides advice and assistance to contracting authorities and economic operators;
– Keeps, maintains and updates records of public contracts and makes them available to the public through its website;
– Collects, processes and analyzes procurement data and prepares statistical reports.

16 Center for civil communications - *Annual report on monitoring the implementation of public procurements in the Republic of Macedonia 2009* (Skopje: FIOOM, 2010) p.4- 25

17 Public Procurement Bureau (accessed 15 January 2013) http://bjn.gov.mk/mk/root/about.html

The State Appeals Commission

The State Appeals Commission has competencies in resolving complaints for conducted procedures for awarding public procurement contracts under this Law. The State Appeals Commission carries out the decision on the legality of the actions and the failure to undertake actions and decisions as individual legal acts adopted in the procedures (referred to in paragraph 1 of this Article), as well as for other activities in accordance with this law. The State Appeals Commission is a public authority that is independent in its work and has a legal entity. The Commission has a professional service. The State Appeals Commission is financed from the budget of the Republic of Macedonia. The Commission is composed of a chairman and four members, who perform their function professionally.[18]

An administrative dispute before the competent court for resolving administrative disputes may be initiated against the decision of the State Commission (judicial protection of the Administrative Court). The Administrative court competent for resolving administrative disputes in public procurement cases makes a decision in urgent procedure. On proceedings before the State Appeals Commission which are not governed by the provisions of this Law will be applied to the provisions of the General Administrative Procedure Law (subsidiary enforcement of the regulations).

The State Audit Office

According to Article 232 of the Law on Public Procurement, auditing of the use and spending of funds for public procurements is done by the State Audit Office, by using the method and procedure which the State Audit Office audits the financial operations as defined in the State Audit Law. The Public Procurement Law gives authority to the State Audit Office to audit the spending of funds, and it is necessary to analyze the data from their previous findings and reports, especially those regarding the illegal actions of the contracting authorities in the area of awarding and realization of pubic procurement contracts.

In the period from May to September 2009, 59 irregularities in financial operations are found which resulted in revision, and in 8 cases the results refer to violation of the provisions of the Public Procurement Law, which is related mainly to:

– incorrect planning of the procurement needs by the contracting authorities;
– higher payments in advance compared to the contracted;
– deficiencies in the realization of the contract (payment period, increased payments than contracted etc.)

The State Audit Office regarded as their weakness the lack of monitoring until the realization of procurement contracts which in practice resulted in many inconsistencies and weaknesses. This inconsistency is expected to be overcome in the future because the State Audit Office has plans and proposals to enhance its jurisdiction on monitoring and enforcement of contracts, as the final step in the public procurement procedure.

The positive feature is the fact that final reports of the State Audit Office can now be subject to a debate of the Parliament committee for finance and budget, differing from the current practice of submitting the Annual Report of this state body to the Parliament of the Republic of Macedonia. This will provide greater inner evidence, the control by the Parliament as well as monitoring the work of the State Audit Office and acting upon these reports by other authorities.

Otherwise, in 2008 and 2009 the level of responsiveness of the Public Prosecution Office is decreased and the submitted audit reports of State Audit Office rarely receive feedback in relation to the measures taken by the State Prosecution Office. In 2001 the percentage of obtained feedback was 94%, while in 2007 it was only 39%. Additionally, only a small number of criminal proceedings are initiated by the State Prosecution Office regarding the findings of the State Audit Office. In the period from 2001-2008, the State Prosecution Office initiated only 12 criminal proceedings on the basis of a total of 269 submitted audit reports, i.e. 4.5%. The available information to the State Audit Office show that in the same period only 2 cases were based on a court judgment. The findings of the audit reports usually result in determining that the State Prosecution Office has no reasonable

18 *PPL. Art. 200-231*

suspicion of a committed criminal act that is being prosecuted ex officio (in 89 cases) or that the cases are in the phase of submitted request to the Ministry of Interior to search for the necessary information (in 57 cases).

Although under article 23 of the State Audit Law, the reports of the State Audit Office containing findings in the field of finance are submitted to the Ministry of Finance, the State Audit Office has no feedback reports about the measures taken by this state body.

According to the Strategy for development of public procurement which is prepared by the Public Procurement Bureau, in the preparation of which the State Audit Office participates, a special audit of public procurement with thematic review is planned to be carried out, considering that it will strengthen the efficiency and effectiveness of auditing in this area and promptly take the measures in case of the violation of provisions of the Public Procurement Act and other regulations.

The State Prosecution Office

According to the Constitution, the State Prosecution Office is the authority that has competencies in protecting social interests and prosecuting offenders of crimes and other criminal acts. Therefore, the violation of social interest may exist in the awarding and in the execution of public contracts, because of the possibility of committing several criminal offenses prescribed in the Criminal Code (e.g. abuse of official duty, fraud, etc.). As the target group of the survey is public procurements carried out by the contracting authorities at central level, the competent State Prosecution Office based in Skopje has to deal with possible criminal charges.

The most common basis for taking actions by State Prosecution Office in the public procurement procedure are the audit reports which must be submitted to the State Prosecution Office. Moreover, the State Prosecution Office should handle the cases when it learns about the abuses and irregularities in the spending of public money. Here are the data and information received from the State Prosecution Office:

– During 2009 nine final reports of the State Audit Office were delivered to the State Prosecution Office, while three of them were sent for further processing in the Ministry of Interior.
– In 2008 13 reports of the State Audit Office were received and for two of them the State Prosecution Office concluded that there were no elements to start procedure, while the other findings of the reports are still awaiting the response from the Ministry of Interior for submission of data and conducting of investigations, hearings of authorized persons and responsible authorities who were subject to control by the state audit.
– In 2007, eight reports were received from the State Audit Office. For one case an investigation was initiated and it was further prosecuted, while the resolutions in which the State Prosecution Office concluded that there were no elements to open proceedings were adopted in two cases, and for the other five reports the Ministry of Interior should deliver data. The Ministry of Interior should deliver data for the reports about determined irregularities in 2006 submitted by the State Audit Office.
– The responses or acting upon the request of the State Prosecution Office which have been being waited for a long period, even several years, while in that period the Ministry of Interior has not responded even after the intervention of the State Prosecution Office have caused inefficiency in the initiation of proceedings by the State Prosecution Office which eventually has been accused of unlawful spending of the budget.
– The State Prosecution Office has no exact data on the question whether the proceedings initiated on the basis of the reports by the State Audit Office, are about the violation of the regulations concerning public procurement.
– The final reports of the State Audit Office are not given priority in the work by the State Prosecution Office, i.e. the objects are taken in processing in the order in which they are received, along with other crimes (e.g. theft).
– The shortage of expert personnel on economy and finance in the State Prosecution Office slow down the proceedings upon the reports received from State Audit Office, because they have to hire an expert outside the State Prosecution Office.

The State Attorney Office

The State Attorney Office has authority to take measures and remedies for the legal protection of property rights and interests of the Republic of Macedonia. The protection is performed before the courts and other authorities in the country and abroad. Public Procurement Law in article 207 prescribes that the State Attorney Office has the right to seek legal protection in public procurement procedures. However, pursuant to the Law on State Attorney, taking actions by this state body depends on the submitted request of the contracting authority or any person who has a legal interest. In the experience of the State Attorney Office, they were never requested to give legal protection in a public procurement procedure, and in only one case a contracting authority has asked for an opinion about the realization (or termination) of the public procurement contract.

Financial police

The State Audit Office sometimes submits their audit reports to the Financial Police, but there have been no serious action taken by the Financial Police concerning possible criminal acts exclusively related to public procurement. Criminal charges that have been submitted to the public prosecutor, against contracting authorities relate to various financial abuses. For this reason, Financial Police has no precise data as whether the abuses are associated with the procedures or the implementation of procurement contracts, because the State Prosecution Office competency concerns the summary of the determined irregularities (mostly as abuse of power, which in turn can include different illegal actions). Financial Police work in coordination with the Organized Crime Department of the Ministry of Interior.

Public Internal Financial Control (Internal Audit) and public procurement

In order to further strengthen the control of public spending, ie the way in which the contracting authorities are spending the funds, internal audit is introduced in the public sector. In this direction, in recent years are brought and implemented two laws: the Law on Internal Audit in the public sector (adopted in 2004) and the Law on Public Internal Financial Control (adopted in 2007), which largely contained the same or similar rules or had the same order. For that reason, in 2009 is adopted a new Law on Public Internal Financial Control, in which are gathered and replaced the two previously mentioned laws (they ceased to be valid).[19]

CONCLUSION

How to strengthen transparency and accountability in public procurement?

The sector for Public Internal Financial Control in the Ministry of Finance is authorized to monitor the implementation of these laws (Public Procurement Law and other laws relating to public procurement). The sector did not have precise data about the enforcement of previous legal solution that provide jurisdiction of the sector in the internal audit for those entities that do not have internal auditors. In the new law, the sector no longer has such jurisdiction, so their work is entirely focused on the application of the new law. For this purpose, it already has 130 auditors trained and employed in the competent authorities, and in accordance with the Action Plan, the number of internal auditors is planned to increase. Because of that, almost all subjects that enforce this law shall have internal auditors. There is a legal obligation to submit an annual audit report to the sector by 15th April of the previous year which is respected by the entities. The jurisdiction of the sector is receiving reports, without getting into their content or taking actions, but just preparing a summary report that is submitted to the Government. After the results contained in the reports have been made by the internal auditor, the body takes measures against employees or measures to eliminate irregularities. The sector has no authority to take measures, but their previous information (based on the reports) mean that appropriate sanctions will be undertaken in the entities where irregularities are determined. In future the work of the sector will be to train internal auditors, to coordinate their work, prepare bylaws, unified forms, reports and the like.

19 *Law on Public Internal Financial Control*, Public Enterprise Official Gazette of R. Macedonia N.90/2009

The aim of the internal audit, at least as it is set in the current law, is to assist the head of the subject (a responsible person in the contracting authority) to manage, control and monitor the financial operations of the subject in a better way. So, the law should render the protection to the head of the state body against the possible abuses by the employees, especially those who have some powers (in terms of financial and material operations). The mechanisms that will provide such help are the internal auditors. Therefore, this unit is consisted of completely independent auditors with respect to all other departments and employees of the authority, other than the chief executive.

Skilled auditors for public procurement and comprehensive regulation of the awarding procurement procedure are key steps for strengthening transparency and control of spending public money in public procurement.

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TOPIC II

CURRENT PROBLEMS IN STRUCTURING AND FUNCTIONING OF A POLICE ORGANIZATION

UDC: 614.85/.86(497.11)
614.85/.86(4)

COLLECTING AND MONITORING IMPORTANT FEATURES OF ROAD ACCIDENTS
- Comparative Review of Practices in Serbia and in Europe -[1]

Full Professor **Krsto Lipovac**, PhD
Academy of Criminalistic and Police Studies
Dragoslav Kukić
Road Safety Agency of the Republic of Serbia
Lecturer **Miladin Nešić**, Mr. Sci.
Academy of Criminalistic and Police Studies

Abstract: Road accidents and their consequences are a measure of a final reflection of unsafety on the observed territory, road or road section. Even though the pretension of researchers in the area of road safety is to assess the road safety situation on a certain road or territory, even before the occurrence of the accident, which is a humane and completely justified practice in the first place, road accidents and their consequences are still the most reliable and the most used measure of the road safety assessment. A lot can be understood, and important lessons learned on the basis of road accidents, all aiming at their prevention. The objective of an investigation and collection of data from the road accident site represent the process of determining a cause. The strategic goal of carrying out an investigation of a road accident and collecting of related data should be the prevention (reduction and elimination) of the occurrence of road crashes in the future. This problem has been tackled in many countries in various ways, depending on the adopted principles, experiences, valid social norms and rules, socio-economic progress of a state, practical solutions and the scientific and professional achievements of a state and dedication to preventing road accidents.

Collection and classification of data is carried out in all European countries, however, over the last years, the European Union has been trying to establish the common system of monitoring of road accident features. A new set of data concerning features of road accidents - the so called CADAS, has been launched to that end. The problem of monitoring causes and errors of road accidents is given from the point of view of comparison of the existing practice in the Ministry of Interior of the Republic of Serbia, the requirements of the European Commission by promoting CADAS and the practice of the British Ministry of Interior (Home Office). This paper can be observed as a contribution to the improvement of monitoring of basic road accident features, which is a compulsory basis for the establishment of an important national road safety database.

Keywords: road accident database, cause of a road accident, CADAS.

INTRODUCTION

Determining causes of road accidents is a complex process that understands a detailed analysis of all influential factors and their contribution to the occurrence of a road accident. To that end, it is necessary to define and comprehend the influential factors, since we can talk reliably about the concrete causes of road accidents only if we understand their nature. This essential detail contributes to determining the key problems of road safety. Sets of data serving for the final causes of road accidents are collected in all the states that monitor their road safety situations. Determining the cause of a road accident itself, by asking: *Who is responsible for the occurrence of an accident?* - is the question of the judicial-executive authority. On the other hand, a much serious question of the state and the citizens is: *Who is accountable for the state of road safety?* In the largest number of countries that have established a road safety system, the supreme authority in this area is the highest managing body – the government. Institutions and organizations authorized by the government are obliged to set up, maintain and continually improve the road safety system. In the managing process, one of the mandatory assignments is the analysis of the road safety situation. If we scratch a little bit under the surface of this assignment, the analysis of the influential factors contributing to the occurrence of a road accident will show up.

1 This paper is the result of the research on the project "Structure and functioning of the police organization - transition, condition and perspectives", which is financed by the Academy of Criminalistic and Police Studies.

Factors contributing to the occurrence of road crashes are events and actions that have a direct or indirect impact on the occurrence of road accidents. They show why road accidents happen, and what is more important, they anticipate how road crashes can be prevented[2].

The analysis of the influential factors in road safety contributes to reducing the negative occurrences in road traffic, and also to reducing the negative consequences of road accidents. Causes and errors of participants in road accidents in Serbia are collected and monitored according to the 1996 model which is not comparable with the model required by the European Commission for the European Union member states (database CARE, i.e. CADAS – Common Accident Data Set). The Road Safety Law (Article 15[3]) reads that the Road Safety Agency of the Republic of Serbia proposes a system of a common basis for evidencing and monitoring the most important road safety features. Since the Traffic Police is in charge of carrying out investigations of road accidents and collecting of data from the site of a road accident, then the cooperation of the Traffic Police Administration and the Road Safety Agency is indispensable in this segment of implementation of the Law in question.

EXISTING DATA COLLECTION PRACTICE FOR THE ROAD ACCIDENT DATABASE IN SERBIA

The Road Traffic Police is responsible for conducting investigations of road accidents[4] and collecting of all data from the site of a road accident, as well as for entering the collected data into a road accident database. Investigations of road accidents with injured and killed are most often conducted by an investigating judge, while in this case the Road Traffic Police is responsible for securing the site of the accident, as well as for offering assistance to the investigating judge while he/she is conducting necessary investigation actions. However, whoever is making the investigation of a road accident (Traffic Police or an investigating judge), entering data into a database is carried out by Traffic Police officers, upon returning to the Traffic Police station. Investigation units are obliged to note all necessary data and to record – register appropriate objects and clues that contribute to resolving the road accident in question[5].

The most important analysis of actions and events preceding the occurrence of a road accident is derived on the basis of data collected and registered by the investigation units. These units collect data on the site of the road accident necessary for the analysis of the flow of events preceding the occurrence of a road accident. In other words, data collected by an investigation unit are statistically analyzed after they had been entered into a road accident database. They are of subjective nature and depend on the skill and experience of the investigation unit that collected and registered these data.

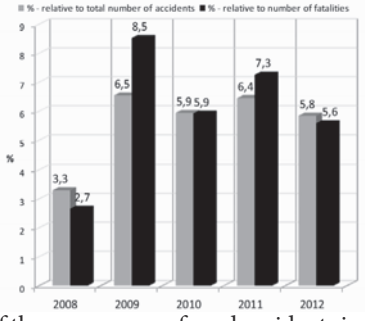


Chart 1 Alcohol as a cause of the occurrence of road accidents in relation to the total number of road accidents and the most severe consequences, in the period 2008-2012[6]

2 Kukić, D. (2012). Analiza uticaja osnovnih propusta učesnika u saobraćaju u nastanku saobraćajnih nezgoda. Bilten br. 7-8. Agencija za bezbednost saobraćaja Republike Srbije, Beograd.

3 "Official Gazette of the Republic of Serbia", Nos. 43/09, 53/10 and 101/11.

4 Road accident investigation – it is a system of actions by means of which, according to the provisions of the Law, objects, tracks and other circumstances important for the explanation of a road accident are observed, processed, registered and secured in the investigation documentation (Lipovac, K. 2008).

5 Lipovac, K. (1994). Uviđaj saobraćajnih nezgoda – izrada skica i situacionih planova. VŠUP, Beograd.

6 Prepared by the authors on the basis of the Ministry of Interior database – Common Information System of the Ministry of Interior of the Republic of Serbia.

Data obtained on the site of a road accident that are entered into a road accident database constitute the basis for the phenomenological analysis of road crashes[7]. However, for the purpose of the statistical monitoring, analysis and derivation of conclusions on the basis of collected data, Serbia disposes of one database – the so called Common Information System of the Ministry of Interior of the Republic of Serbia. On the basis of this database, large number of analyses is being made, including even proposals for road safety measures. Example of such analysis is given in the Chart 1. However, our country still does not possess a common (national) road safety database, or a database of etiological analyses of road accidents, nor a database based on expertise and in-depth analyses of road accidents. Photodocumentation (Figure 1) is part of road accident scene documentation. It is used in road accidents expertise and other etiological road accidents analyses.

A detailed storage and processing of data from the etiological analyses of road accidents can be assigned to the domain of scientific institutes and courts, requiring (courts) and conducting (scientific institutes) a large number of analyses of road accidents (forensics). These institutions possess the necessary material, data and case files, as well as resources for the formation of this very important set of data.

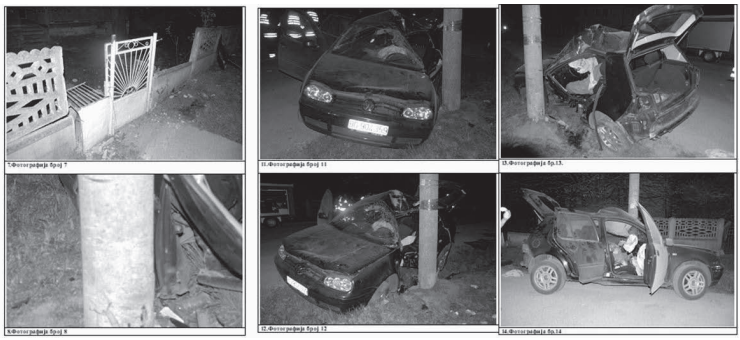


Figure 1 Photo-documentation – a part of the investigation documentation from the site of a road accident[8]

DEFINING CAUSES AND ERRORS – A MODEL APPLICABLE BY THE MINISTRY OF INTERIOR

Road accident database of the Ministry of Interior of the Republic of Serbia is the most frequently used set of data on the basis of which the analysis of the so called causes and errors contributing to the occurrence of road accidents is being carried out[9]. It is important to mention that this database can be used for the phenomenological analysis of road crashes.

The choice of causes and errors of road accident is of subjective nature in majority of cases (which certainly is not the best solution) and depends on the Traffic Police officer who enters the data into the database upon returning to the Police station. This is done on the basis of the previously filled in questionnaire on the site of the road accident (the so called road accident questionnaire). The road accident database of the Ministry of Interior contains 115 causes and errors that are entered into the database by the Police officer. Analyzed causes and errors represent failures and omissions by the part of road users, road authorities, as well as the impact of the roadside area on the occurrence of road accidents. They are divided into following groups:

1) Entering a traffic flow or illegal actions of a vehicle in traffic (entering traffic from a country road, turning into an illegal direction, moving backwards, making a turn on the carriageway …);

7 Lipovac, K. (2008). Bezbednost saobraćaja. Službeni list SRJ, Beograd.

8 Separated and prepared by the authors, based on the documentation of the traffic accident scene investigation with killed person from police District in the City of Šabac.

9 Agencija za bezbednost saobraćaja Republike Srbije (2012). Priručnik za licenciranje kadrova u procesu osposobljavanja kandidata za vozače. JP Službeni glasnik, Beograd.

2) Over-speeding or illegal vehicle speed (given the distance between the vehicles, when approaching a signalized pedestrian crossing, when approaching an intersection, driving beyond the set speed limit in the urban area …);
3) Not yielding the right of way (to the vehicle coming from the right side, to the vehicle moving on the road with right of way, to the oncoming vehicle, when making a left turn …);
4) Illegal or irregular overtaking and passing (on a portion of road with inadequate sight distance, of a vehicle that started to overtake, on the lane intended for the emergency stopping of a vehicle, of the vehicle standing in front of the signalized pedestrian crossing, of the convoy of vehicles …);
5) Illegal or irregular bypassing (insufficient distance to the other vehicle, on a narrowed portion of road with the big longitudinal slope, at the intersection where an oncoming vehicle is turning left …);
6) Illegal stopping and parking (opening the door of the stopped or parked vehicle, unlit vehicle on the carriageway in the night, at reduced vision, without a posted sign indicating a stopped vehicle, on a portion of road with inadequate sight distance …);
7) Other illegal or irregular movements of vehicles (illegal towing of vehicles, illegally placed load on the vehicle, illegal transport of passengers …);
8) Psychophysical condition of the driver (under the influence of alcohol, under the influence of drugs, fatigue …);
9) Being qualified for vehicle driving (driving a vehicle before acquiring a right to drive, driving a vehicle of the category for which the driver has not been qualified, insufficient driving experience …);
10) Illegal actions of other road users (pedestrians crossing the carriageway at the red light, pedestrians crossing the carriageway outside pedestrian crossing, jumping in/jumping out of a moving vehicle …);
11) Vehicle roadworthiness (stopping devices are out of order, devices connecting the towing and articulated vehicles are out of order, irregular or inappropriate pneumatics …);
12) Illegal condition of the road, road facilities and road signs (potholes, rockslides, landslides, etc., unsecured road construction works, road facilities – safety barriers, median barriers, etc., slippery road surface …);
13) Other causes and circumstances (sudden bad weather, birds or game hitting a vehicle, etc., and other unpredictable causes and circumstances …).

Drivers' failures contribute to a great extent to the type of a road accident. According to the current structure of the road accident database of the Ministry of Interior, fourteen types of road crashes can be differentiated. The types of road accidents that are statistically monitored and analyzed are the following:

1) Head-on crashes (crashes with oncoming vehicles);
2) Side impacts;
3) Crashes with ongoing vehicles (vehicles driving in the same direction);
4) Parallel driving;
5) Hitting a stopped or parked vehicle;
6) Hitting an object on the road;
7) Vehicle overturning on the road;
8) Rolling off the road;
9) Rolling off the road and hitting a roadside object;
10) Collision between a road traffic and a railway vehicle;
11) Falling out – falling down of a car occupant from a moving vehicle;
12) Hitting or running over a pedestrian;
13) Hitting or running over the cattle or other animals;
14) Other types of accidents.

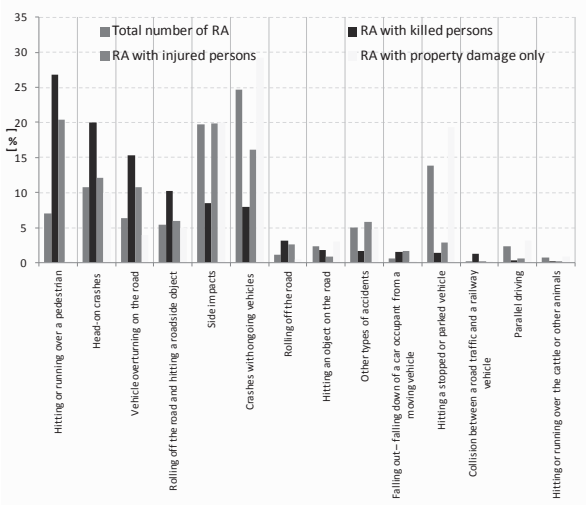


Chart 2 Percentage of the share of the total number of road accidents and the number of road accidents with killed in relation to the types of road accidents, based on the first half of the 2011. [10] (RA – Road accidents)

The distribution of the types of road accidents in relation to the total number of road accidents and road accidents with killed in Serbia, in the first half of 2011, is shown in the Chart 2.

Based on the shown distribution, the percentage of share of the severest road accidents in the total number of accidents differs considerably with certain types of accidents. Types of road accidents with the severest forms of casualties are the following:

1) Road accidents with hitting and running over pedestrians;
2) Crashes with oncoming vehicles;
3) Rolling off the road;
4) Rolling off the road and hitting a roadside object;
5) Side impacts.

When talking about the actions and proceedings of road users that have contributed to the occurrence of road accidents, we actually analyze the role of the most important road safety factor – the man (i.e. driver, pedestrian, car occupant, herdsman or rider). This role is the most important one and represents to the greatest extent a factor contributing to the occurrence of road crashes. However, it is intolerable to neglect the role of the road, the roadside area and the vehicle condition, which are very frequent cases in the analyses of available official data. As a negative example of the characteristic of the current road accident database, one should mention the fact that in the period 2011 and 2012 (also frequently present in the previous years), no accidents with killed were reported, in which the condition of the road and road facilities brought about the occurrence of accidents. It has been assessed that the lack of road accidents with causes, or at least contribution of the road authority, i.e. the condition of the road and road facilities in the process of occurrence of road accidents, cannot be the reflection of the real conditions. The state of road and road facilities in a certain number of severest road accidents must have an impact, if not on the occurrence of an accident, then on the severity of its consequences. Compared to Serbia, the impact of the road and road facilities exist to a great extent in the countries which have a far more developed infrastructure. It is present even in the countries that have accepted considerably the concept of designing "forgiving roads"[11], within the road safety system.

10 Prepared on the basis of the database of the Traffic Police Administration of the Ministry of Interior.
11 The term "forgiving road" implies the road which mitigates road accident consequences, due to its features, road facilities and the roadside area.

THE MODEL OF MONITORING INFLUENTIAL FACTORS IN ACCORDANCE WITH CADAS

The basic set of road accident data or *Common Accident Data Set – CADAS*, represents the set of standardized elements that should be contained in a road accident database and which is mandatory for the EU member states. *CADAS* has resulted from the experience in working with the common road accident database of the EU member states, i.e. the so called *CARE – Community database on road accidents*. The *CADAS* protocol is a part of the *CARE* database and provides the possibility of comparing detailed road accident data between the EU countries. It can be implemented as the main database on the national level thus ensuring the comparison of data with other member states. It is important to mention that the *CADAS* structure does not include road accidents with property damage only.

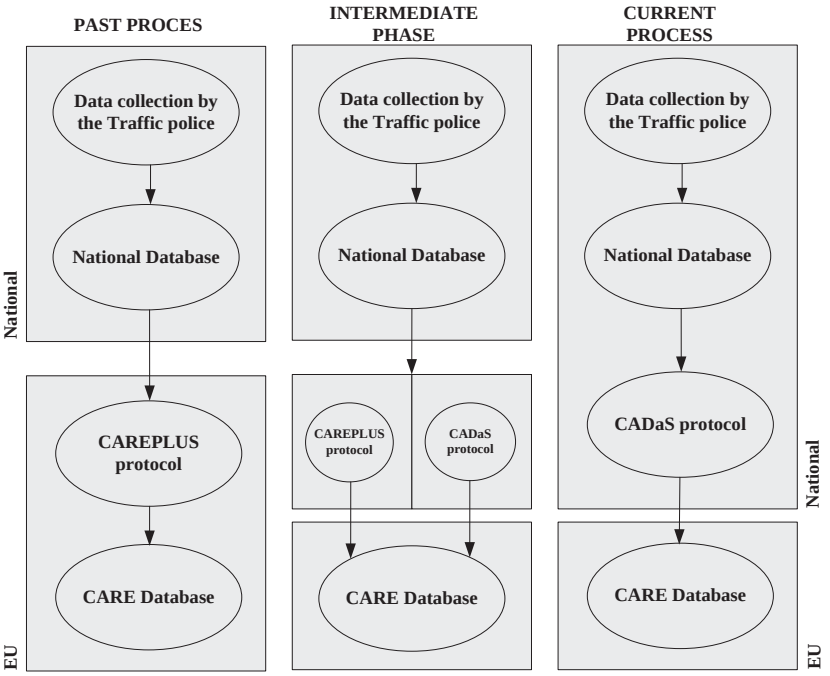


Diagram 1 The process of transformation of the improvement of road accident databases in the EU countries and introduction of the *CADAS* protocol

Diagram 1 shows the process of transformation of improvement of road accident database in the EU countries[12]. It can be concluded from the diagram that the EU member states have understood the importance of establishing a national database into which data collected by the Traffic Police would be simply "flowing into". This question has been given importance only recently in the Republic of Serbia. The importance, necessity and obligation have been recognized, but the fact is that, apart from the Traffic Police that collects the data from the site of a road accident, the insight into sets of road accidents data according to the Law[13] must be made available to other institutions and organizations involved in the road safety system in Serbia.

12 European Commission, Directorate-General Transport and Energy, R4 Informatics Unit, (2011). Common Accident Data Set.

13 Law on Protecting Personal Data, Official Gazette of the Republic of Serbia No. 97/2008 and 107/2012; Law on Data Secrecy, Official Gazette of the Republic of Serbia No. 104/2009; Decision of the Constitutional Court No. IUz-41/2010, Official Gazette of the Republic of Serbia No. 68/2012 and 107/2012

The aim of the European Union is the establishment of the common database of all member states. In order to achieve this, it is necessary to set up a common national database wherein data other than road accident data would be also collected. These data would include data concerning roads, vehicles, drivers, drivers' behaviour, demographic characteristics, socio-economic indicators, relative road safety indicators obtained by a combination of previously mentioned data, statistical analyses and reports, etc.

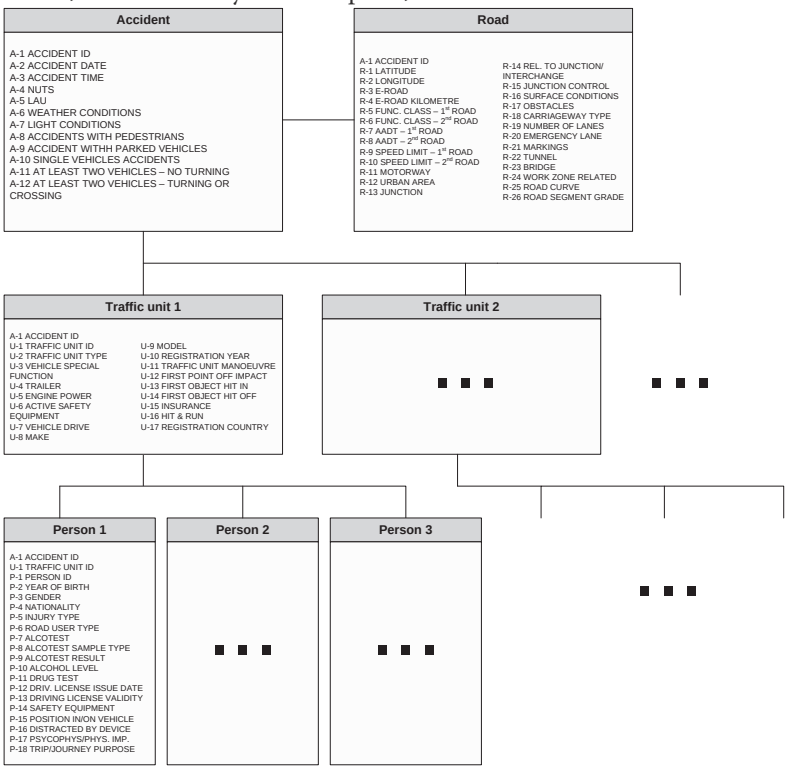


Diagram 2 The structure of *CADAS* and relationships between four basic sets of data, (1) road accident, (2) road, (3) road user category and (4) persons[14]

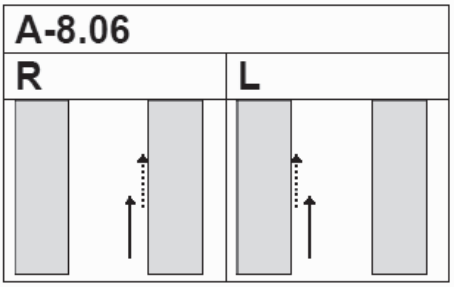
CADAS contains four sets (categories) of data relating to:

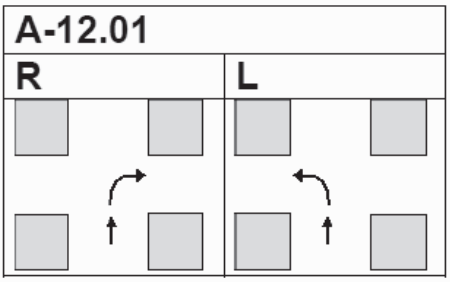
1) Road accident – Accident (A);
2) Road – Road (R);
3) Vehicle category – Traffic unit type (U) and
4) Person category – Person (P).

Diagram 2 shows the interrelation between four basic sets of data (categories) and the relationship between the variables of these sets. Diagram 2 represents the structure of *CADAS*.

The characteristic of *CADAS* is the large number of kinds (types) of road accidents that can be defined on the basis of questionnaires filled in by investigations units which facilitate the process of defining causes of road crashes. One road accident can have several variables that relate to a kind or type of a road accident. A detailed selection of options has been offered for accidents with pedestrians, accidents with parked vehicles, accidents with one vehicle and with at least two vehicles. Each option has its own graphical display of the road accident describing the positions of vehicles or pedestrians at the moment of the first contact (Pictures 1 and 2).

14 European Commission, Directorate-General Transport and Energy, R4 Informatics Unit, (2011). Common Accident Data Set.





Figures 2 and 3 Examples of graphical displays describing the positions of vehicles and pedestrians moving on the carriageway (1) and two vehicles in collision "hitting on the rear at the moment the vehicle in the front was making a turn" (2) – *CADAS* protocol

An important detail that helps in resolving the road accident relates to the manoeuvre of the vehicle immediately before the first contact. Data concerning the manoeuvre of the vehicle are stored in the set of data concerning vehicle details, i.e. in the vehicle category or a category of road user category. The main reason for introducing vehicle manoeuvre data is the analysis of the performance of a certain driver's action made immediately before the first contact. The list of vehicle manoeuvres represents the data entered by the investigation team immediately after the occurrence of the road accident, by filling in the appropriate form. Data concerning vehicle manoeuvres currently do not exist in the road accident database of the Ministry of Interior. It is expected that this data will be compulsory with the introduction of a new database of importance for road safety.

The list of vehicle manoeuvres:

1) Can not be determined,
2) Reversing,
3) Parked,
4) Entering a parking position,
5) Leaving a parking position,
6) Insufficient tail-gaiting,
7) Slowing or stopping,
8) Moving off,
9) U-turn,
10) Turning left,
11) Waiting to turn left,
12) Turning right,
13) Waiting to turn right,
14) Changing lane to left,
15) Change lane to right,
16) Avoidance manoeuvre,
17) Overtaking a vehicle on the prohibited side,
18) Passing a vehicle on the prohibited side,
19) Overtaking or passing a vehicle on the allowed side,
20) Sudden left turn made when driving straight,
21) Sudden right turn made when driving straight,
22) Straight forward/normal driving,
23) Entering or leaving a parking position(s),
24) Waiting to turn,
25) Turning,
26) Changing lane,
27) Overtaking.

The list of pedestrian manoeuvres:

1) Crossing (on pedestrian crossing),
2) Crossing (on other point),
3) Walking on the carriageway, facing traffic,
4) Walking on the carriageway, back to traffic,
5) Standing or playing on the carriageway,
6) Not on the carriageway (on sidewalk, pedestrian road etc.),
7) Lying on the carriageway,
8) Entering or getting out of a vehicle,
9) Crossing,
10) Walking or standing on the carriageway,
11) Other,
12) Unknown.

In order to determine the cause of a road accident in a reliable manner, detailed data are offered in the set of data for the category of person, such as: alcotest, drug test, date of obtaining a driving licence and driving experience, validity of driver licence, use of protective equipment, precisely defined sitting position of the participant in a road accident, distraction of a driver or pedestrian by using some electronic device and mobile phone, psychophysical distraction due to illness, fatigue, or even due to sunlight or headlights of the oncoming vehicle. Also, an important data helping to determine the cause of a road accident relates to the type of travel of the participant in an accident. This understands the following:

- Travelling from home to school,
- Travelling from home to work,
- Going on a trip,
- Going shopping,
- Going to a night life,
- Going to sports activities, walking, etc.

Within the set of data containing information on the road, and apart from the data on the location of a road accident (x and y coordinates), the *CADAS* protocol contains detailed data: on the road category, speed limit posted on the road section, type of intersection, loop, traffic control at the intersection, data concerning weather conditions and condition of the carriageway, other obstacles, number of traffic lanes, existence of stopping lanes, markings on the road, in tunnels, on bridges, in construction work zones, data concerning potential curves, existence of the longitudinal slope of the road higher than or equalling 6%. All these data can be more or less influential factors in the process of occurrence of a road accident, and even the concrete causes of the occurrence of road crashes.

THE MODEL OF MONITORING INFLUENTIAL FACTORS IN GREAT BRITAIN

Great Britain belongs to the group of the most advanced countries in the area of road safety management. This is supported by the fact that Great Britain has been classified as a country belonging to the *SUNflowers* group, i.e. countries with the biggest progress in the field of road safety. This group has been declared by the European Commission and, apart from Great Britain, it includes Sweden and the Netherlands. The smallest number of killed in relation to the number of population, number of registered vehicles and number of travelled kilometres has been recorded in these countries over the past years. The analysis of the best practice of the countries that made the biggest progress concerning road safety represents an important detail, having in mind in particular the necessity to adjust the existing practice in Serbia to the practice of the EU countries.

A model of data collection of influential factors of road accidents in Great Britain has been shown below. The model is applied in the British Ministry of Interior and the British Statistical Administration. The model complies completely with the *CADAS* (Common Accident Data Set) requirements of the European Commission and offers a modern, expert and scientifically accepted method of monitoring and recording influential factors in the process of occurrence of road accidents.

The British model consists of nine groups of influential factors that have the impact on the occurrence of road crashes (Table 1). Data are coded in order to be adjusted to the attributive database and are collected by the British Ministry of Interior (Traffic Police). After that, they are forwarded to the British Administration for statistical purposes and analysis. The groups of influential factors on the occurrence of road accidents that are subject to analysis are the following:

- **Group I** – Influence of the road environment;
- **Group II** – Influence of a vehicle defects;
- **Group III** –Injudicious action by driver/rider;
- **Group IV** – Driver/rider error or reaction;
- **Group V** – Impairment or distraction;
- **Group VI** – Behaviour or inexperience;
- **Group VII** – Vision affected by external factor;
- **Group VIII** – Pedestrian only (casualty or uninjured);
- **Group IX** – Special codes (that don't belong to any of the previously mentioned groups).

The first and the second group of influential factors relate to the contribution of the road and roadside area in the process of occurrence of road accidents, as well as to the influence of potential breakdowns of vehicles.

Undertaking inconsiderate actions in traffic by drivers is a situation in which a driver is steering the vehicle in the way in which by undertaking certain vehicle manoeuvres (actions), he/she contributes to the occurrence of a road accident. Failures associated with this group are most often analyzed in combination with the failures from groups V and VI and are related to: inattention, distraction, bad psychophysical condition of the driver, as well as to inexperience, inappropriate, unsafe and illegal behaviour in traffic. More reliable information can be obtained from the combination of failures in groups V and VI, because the driver has undertaken inconsiderate actions.

Table 1 British model of collecting data on influential factors in the process of occurrence of a road accident[15]

	Group I Influence of the road and roadside area	**101**	**102**	**103**	**104**	**105**	**106**	**107**	**108**	**109**		
		Bad or inadequately maintained carriageway	Road covered by oil, mud, etc.	Slippery road surface due to weather conditions	Inappropriate or insufficiently visible traffic signalization	Lighting traffic signs out of order	Influence of implemented traffic calming measures	Influence of the temporary traffic signalization (redirecting of traffic, change of the traffic regime by using temporary traffic signalization)	Influence of the road alignment (saddle, cuts, gorges, etc.)	Animals or objects on the carriageway		
	Group II Influence of the vehicle condition	**201**	**202**	**203**	**204**	**205**	**206**					
		Inappropriate, out of order or badly inflated pneumatics	Lights or direction indicators out of order	Failure of the stopping device	Failure of the steering device	Absence or failure of the inner or outer mirrors	Overload or wrongly placed load in the vehicle or in the articulated vehicle					
Codes relating to all drivers (including bicyclists and riders)	**Group III** Undertaking inconsiderate actions by drivers	**301**	**302**	**303**	**304**	**305**	**306**	**307**	**308**	**309**	**310**	
		Failing to stop at the permanent or temporary red light (road works, etc.)	Failing to stop at the sing STOP or intersecting with the priority of way road	Driving over the double solid median line on the carriageway	Failing to stop the vehicle in front of the signalized pedestrian crossing	Illegal direction of movement or turning of the vehicle	Speeding over the posted speed limit	Speed unadjusted to the existing conditions	Unsafe distance between vehicles	Movement of vehicles along the pavement or hard-shoulder	Bicyclist entering the road from the pavement	
	Group IV Wrongly performed actions in traffic by drivers	**401**	**402**	**403**	**404**	**405**	**406**	**407**	**408**	**409**	**410**	
		Failing to stop at the intersection in front of the marked stopping line	Vehicle manoeuvres at the intersection after a successful stopping in front of the intersection	Erroneous performance of vehicle turning or other vehicle manoeuvres	Erroneous or unsuccessful giving of signals to other road users before performing actions with the vehicle	Failure of a driver related to the irregular apprehension of the traffic situation	Inappropriate estimate of the trajectory or speed of movement of other road users	Inappropriate (too close) passing of a pedestrian, bicyclist or rider	Undertaking emergency (forceful) braking of the vehicle	Emergency (sudden) change of direction of vehicle movement	Losing control over the vehicle	
	Group V Failures of drivers due to bad psychophysical condition, inattention, distraction	**501**	**502**	**503**	**504**	**505**	**506**	**507**	**508**	**509**	**510**	
		Driving under the influence of alcohol	Driving under the influence of drugs or prohibited medicines	Driver's fatigue	Problem with driver's eye sight due to the absence of appropriate glasses (lenses)	Illness, mental or physical disability	Absence of use of lights during the night or in conditions of reduced vision	Wearing dark clothes by bicyclists	Use of a mobile phone by drivers	Events or actions of car occupants disturbing the driver	Existence of occurrences or events outside the vehicle that had an impact on the driver	
	Group VI Failures of drivers due to inexperience, inappropriate and illegal behaviour	**601**	**602**	**603**	**604**	**605**	**606**	**607**				
		Aggressive driving (reckless driving)	Neglectful, inconsiderate and hasty driving	Nervous, panicked and unpredictable driving	Slow driving in the existing traffic conditions	Lack of experience that contributed to the accident	Lack of driving experience in the left (right) traffic lane	Insufficient knowledge of vehicle models				
	Group VII Failures of drivers due to inadequate vision, sight distance, i.e. complete impression of the road and road traffic	**701**	**702**	**703**	**704**	**705**	**706**	**707**	**708**	**709**	**710**	
		Influence of the stopped or parked vehicle	Influence of the vegetation (trees, hedge or any other type of vegetation)	Influence of the delineation on driver's vision (saddle, curve, etc.)	Influence of construction objects, advertisements, traffic signalization, etc. on driver's vision	Influence of headlights of the oncoming vehicle on driver's vision (driver's blindness)	Influence of the sunshine on driver's vision (driver's blindness)	Influence of rain, drizzle, snow or fog on driver's vision	Influence of various types of splashing by other vehicles (the "spray" effect) on driver's vision	Influence of a dirty or scratched windshield (it can also be due to unclear ice, etc.) on driver's vision	Influence of the blind spot of the vehicle (due to vehicle design) on driver's vision	
	Group VIII Failures of pedestrians	**801**	**802**	**803**	**804**	**805**	**806**	**807**	**808**	**809**	**810**	
		Stepping on the carriageway between parked or stopped vehicles	Pedestrian's careless stepping on the carriageway, without previously being convinced that it is safe to do that	Wrong estimate by a pedestrian of vehicle's driving speed and trajectory	Crossing a pedestrian crossing at the red light indicated for pedestrians	Performing dangerous pedestrian actions on the carriageway (children playing, running in front of a vehicle, etc.)	Pedestrian being under the influence of alcohol, behaving in the manner that contributed to the occurrence of a road accident	Influence of drugs or medicines on pedestrian's behaviour that contributed to the occurrence of a road accident	Neglectful, inconsiderate, hasty or impudent behaviour of pedestrians that contributed to the occurrence of a road accident	Influence of the pedestrian's dark clothes on the occurrence of a road accident	Influence of illness or pedestrian's disability (physical or mental) on the occurrence of a road accident	
	Group IX Special cases	**901**	**902**	**903**	**904**						***999**	
		Driving a stolen vehicle that contributed to driver's behaviour and occurrence of a road accident	Road accident occurred during the commitment of a criminal deed (excluding vehicle theft), and during a police chase	Road accidents with the participation of emergency service vehicles on duty	Irregular or neglectfully closed (closing of) doors on a vehicle that contributed to the occurrence of a road accident (including public transportation vehicles)						Other factors that can not be associated with the previously mentioned codes, but that have an influence on the occurrence of a road accident	

Failures related to erroneously conducted actions in traffic relate to the errors and bad estimates of the traffic situation made by a driver, as well as to the errors of a driver provoked by a manoeuvre (disturbance) of other road users, which is of decisive importance for the occurrence of a road accident.

15 Department for Transport of the UK (2011). Reported Road Casualties in Great Britain: 2011 Annual Report.

Failures of drivers and other road users (bicyclists, pedestrians, riders …) due to inattention, distraction, bad psychophysical conditions aim at better explaining why road accidents happen. Failures from this group belong to the central factors that limit drivers' performances.

Group VI comprises failures of road users, i.e. of drivers (riders) related to the inexperience and inappropriate and illegal behaviour of drivers. This group, likewise the previous one, helps to understand the reasons due to which drivers' actions and undertaken movements have contributed to the occurrence of a road accident.

Failures due to inadequate driver's vision and sight distance, i.e. due to a complete impression of the vision of the road and traffic on it belongs to the group VII. Defining failures from this group is applied because of the unsuccessful or erroneously performed driver's manoeuvre, such as the cases of difficult overview of a traffic situation due to a foggy or dirty driver's windshield or the impossibility to notice the dangers such as the oncoming vehicle or a pedestrian on the road. Failures from this group are used when it is very likely that the danger could have been avoided if the driver had been able to clearly see the potential hazard.

Road users' failures from the group VIII include failures by the part of pedestrians who contributed to the occurrence of a road accident, regardless of whether the pedestrians sustained any consequences in these accidents.

The last group of influential factors within the British model, i.e. group IX consists of special files which include cases and events such as road accidents occurred as a result of a criminal deed or an accident occurred during the action with the participation of emergency service vehicles. Group IX also includes "other" influential factors that cannot be associated with the previously mentioned codes.

It is important to point out that an authorized person in charge of data collection on the site of a road accident has the possibility (obligation) to mark each code, among the offered ones, they having an influence on the occurrence of an accident in the particular case. Combinations of codes that are classified within different groups are recommended in the compulsory lists intended for the conduct of an investigation of a road accident. This certainly represents a suggestion to the investigator to make an appropriate check out.

CONCLUSION

A part of the European network of road corridors belongs to Serbia, which in any case dictates the obligation to monitor the state of road safety on this network in the European manner, i.e. in the way the majority of European countries is doing it. This is not important only because of that fact, but before all due to the fact that the leading countries in the field of road safety management in the world are actually certain European countries. Therefore, the implementation of the best practice should be a self-justified method for the purpose of achieving the highest goals.

In order to respond to the introduced obligation, it is necessary to establish a common database concerning road safety features in accordance with the requirements of the European Commission. The development of the *CARE* database of the EU member states is in compliance with the *CADAS* protocol whose aim is a common monitoring of road safety features of the European road corridors.

The primary objective of collecting data on road accidents and setting up of quality bases is the improvement of road safety. The basic issue is to recognize the problems by using quality analyses and thus help with the prevention of occurrence of road accidents. This is for sure a big incentive for and obligation of the Republic of Serbia, not only for the sake of our citizens, but also for the benefit of all road users from other countries who are using our road network.

Data concerning influential factors in the process of occurrence of a road accident in Serbia are monitored within the set of data relating to the causes and errors, contained in the Common Information System of the Ministry of Interior of the Republic of Serbia. The model of collection and storage of road accident data originates from 1996. It has been surpassed, i.e. it is not compatible with the largest number of the EU member states, in terms of monitoring of influential factors. The Republic of Serbia and the Traffic Police need to respond to the requirements relating to the collection of road accident data that comply with the EU *CADAS* requirements. Therefore, this paper represents a contribution to the improvement of the existing road accident database in Serbia, which requires new solutions, adjusted to the European countries in the first place.

Apart from the presented British model of monitoring influential factors (causes, errors, failures, etc.) it is desirable to continue with the analysis of the models of other European countries, apart from Great Britain, especially of those countries that are the leaders in the field of road safety management, such as the Netherlands, Sweden, Denmark, Germany, Norway, etc. It is expected that the existing and future researches, as well as the reviews of foreign experiences will be of great help for the acceptance of necessary changes and setting up of a national common database of importance for road safety, according to the Road Safety Law[16].

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SOME ASPECTS OF GEO-TOPOGRAPHIC SECURITY RELATED TO THE USE OF SPECIAL POLICE FORCES

Full Professor **Boban Milojković**, PhD[1]
Associate Professor **Saša Milojević**, PhD[2]
Teaching Assistant **Bojan Janković**, MA[2]
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Geotopographic security incorporates measures, procedures, and activities aimed at timely gathering, sorting and processing, as well as presenting, designing, distribution, submission, exchange and storage of geospatial data relevant for the subject-matter in question, which is necessary for effective and efficient management of the system of defence and security measures and activities. It is mostly based on geotopographic materials designed in the graphic, photographic, digital, numerical, and textual forms. However, experiences from the police interventions in our national geospace indicate that geotopographic security, as a form of security, was comparatively frequently used, although it had no theoretical foundation. This means that police officers in the units performing special security assignments do not have appropriate geotopographic materials, so that prior to, during, and after an intervention, they use the existing system of maps and plans for military and civilian purposes in order to prepare, organize, execute, and monitor the situation related to the given geospace. These materials do not contain all relevant data and their contents may be outdated.

The paper is therefore aimed at offering a presentation and instruction on producing certain types of modern geotopographic materials by using geo-information technologies such as remote sensing products – the LIDAR system and Pictometry, which can be used for specific and modern purposes of special police forces to a certain extent. The paper presents a way in which the shortage of special-purpose geotopographic materials can be compensated for because they are of particular importance as support in the decision-making process during preparation and execution of anti-terrorist and counter-insurgency police activities.

Keywords: modern geotopographic materials, remote sensing, geo-information technologies, tactics of deploying special police forces.

INTRODUCTION

Geosecurity is a general term for overall activity of geosciences. The concepts of geotopographic security of the military, geotopographic security of the police, and geotopographic security of civil structures (architecture, civil engineering, urbanism, settlement planning, the cadastre of real property, environmental protection, etc.) have been derived from it. Geotopographic security of the police dates from the mid-twentieth century but its concept and essence have since been insufficiently familiar in police practice. Strategic and doctrinal documents on security and expert literature do not pay due attention to the concept so that certain questions remain unanswered and one of them is geotopographic security of special police units.

These units are conceived as specialized organizational parts of the Police Directorate and the Ministry of Interior of the Republic of Serbia, whose primary purpose is to carry out tasks which outstrip the framework of regular police duties. Generally, they can be divided into special purpose units (the Police Brigade and the Mobile Police Unit) and special tactics and weapons units with 'military capability' (Gendarmerie, Special Anti-Terrorist Unit, Counterterrorist Unit, and Helicopter Unit) which can be engaged only with the prior permission of the minister, at the suggestion

1 This paper was realized as a part of the project *"Studying climate change and its influence on the environment: impacts, adaptation and mitigation"* (43007) financed by the Ministry of Education and Science of the Republic of Serbia within the framework of integrated and interdisciplinary research for the period 2011-2014.
2 This paper was realized as a part of the project carried out by the Academy of Criminalistic and Police Studies entitled "*The Structure and Functioning of Police Organisation - Tradition, Current Situation, and Perspectives*".

of the Director of Police (the proposal contains the engagement plan – aims, activities, responsible commanding and executive personnel, geospace and time, and the engagement assessment in terms of expected effects).[3]

Without diminishing importance of developing a comprehensive concept of geotopographic security for all special purpose police units, the paper will place an emphasis on certain aspects of geotopographic security of Gendarmerie, Special Anti-Terrorist Unit, and Counter-Terrorist Unit, as the units that are highly specialized in arresting dangerous criminals, resolving hostage rescue situations, neutralising terrorist groups, extradition, security arrangements for protected persons and objects of special importance, reinstating public order and peace following serious, large-scale violation thereof, and other special security-related tasks.

CONCEPT AND STRUCTURE OF GEOTOPOGRAPHIC SECURITY FOR POLICE PURPOSES

There is no doubt that manifestation of violence perpetrated as acts of organized crime and terrorism, in the situations of armed rebellions, civil unrests, hostage situations, natural and technical disasters present danger to the individual and society generally.[4] Since one of the main functions of the state is the protection of society and all of its members, combating such manifestations of national security threats appears to be absolutely necessary. One of the most important state instruments in this area is the police.[5] Curbing the most serious forms of organized crime and terrorism is one of the greatest problems that the police are faced with. Naturally, each intervention has its special characteristics, but the principles for assessing situations, decision making, creating and carrying out plans, issuing orders, and monitoring the course of the intervention,[6] apply generally. The interventions of special police forces aimed at suppressing organized crime and terrorism involve specific security tasks including: planning, organizing, and carrying out the most complex security tasks in cases of countering terrorism (recording, tracking, comparing, and predicting the phenomena and events that contain elements of national and international terrorism; the detection of criminal acts of terrorism; securing physical evidence and arresting perpetrators; preventive counterterrorist activities; direct interventions aimed at eliminating terrorist groups and dissolving organized networks of terrorists); resolving hostage situations, especially in the cases of hijacking and vehicle abduction (involving a bus, passenger vehicle, train, vessel); barricades (storming besieged facilities and arresting persons on these premises); arresting dangerous criminals and criminal groups; interventions in situation when armed resistance is expected; providing assistance in combating organized crime; providing securing of persons and facilities under an immediate threat of terrorist attacks; ensuring public order in high-risk situations and providing assistance in emergency situations.[7]

In order to perform these tasks, members of special police units have to be trained[8] in the use of the existing geotopographic materials for obtaining necessary data on geospace but also to keep them up-to-date so as to serve their purpose, because the police do not have their geodesic service. This means that the aforementioned special assignments specifically demand careful consideration of the characteristic features of geospace in which they are to be performed. These needs can best be defined by the unit managers and officers, before, immediately during an intervention in the field, and after its completion.

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3 Subošić, D., Mojsilović, Ž., (2011). *Jedinice policije posebne namene kao protivteroristički potencijal Ministarstva unutrašnjih poslova Republike Srbije*, U Zbornik radova: Međunarodna naučn-ostručna konferencija „Suprotstavljanje terorizmu – međunarodni standardi i pravna regulativa", MUP Republike Srpske i Hanns Seidel Stifung, Kozara, 29-30. mart 2011. str. 342.

4 Милојевић, С., (2008). *Оружана побуна и побуњеничка дејства као облик угрожавања безбедности државе,* Безбедност, год. 50, бр. 4, p. 6.

5 Стевановић, О., Милојевић, С., (2004). *Теоријски и практични аспекти савремених операција и операција снага полиције,* У зборник радова „Теоријски и практични аспекти савремених операција", Београд, p. 185.

6 Регодић, М., (2007). *Коришћење сателитских снимака за вођење радне карте*, Војнотехнички гласник, год. 55, бр. 1, p. 62.

7 Милојевић, С., (2009). *Полицијска тактика,* Криминалистичко-полицијска академија, Београд, p. 156.

8 Јанковић, Б., (2010). *Превенција насиља на спортским приредбама*, Гласник права, год. 1, бр. 3. стр. 154.

Experiences from interventions of special police forces in the national geospace in the past 20 years have shown that geotopographic security, as a kind of security, was relatively present, but that it was not theoretically defined. Thus, for instance, securing an intervention of special police units aimed at restoring large-scale disturbances of public order includes measures, procedures, and activities which prevent sudden disorderly activities of rioters or alleviate and eliminate effects of the large-scale public order violations and create favourable conditions for organized, timely and successful preparation and engagement of the police, i.e. it creates favourable conditions for the intervention of the police. The types of security interventions of the police include: informational and psychological – propaganda security, intelligence and security services, logistics security, medical security, geotopographic security, transportation security, fire fighting security, veterinary security, masking, safety at work and environmental protection. [9]

The concept of 'geotopographic security' is frequently understood as delivering ready-made geotopographic materials. Besides, there is a misconception that the word 'security' means delivering ready-made geotopographic materials, because this is not necessarily done by the geodesic service. The basic question is: what to deliver? British experts have found out that the data on geospace[10] are required for decision-making in 85 % of the cases and providing them is the task of the civil and military geodetic authorities. The primary duty of the said institutions is to gather geospace data in one place, whether from the field or from official documents, to process them, make geotopographic materials, and then provide their users with these materials in an acceptable way, storage of these materials and, if necessary, their withdrawal from official use. Geotopographic security also includes professional training and qualifying persons for collecting and processing data on geospace, its continuous exploration, designing geotopographic materials[11], and their skilful use and updating.

A conclusion can be drawn that the concept of geotopographic security as part of geosecurity involves complex scientific and research activities, production, education and distribution activities performed by civilian and military geodesic offices, institutions of higher education and research institutions, aimed at timely collection, processing, topic-focused modelling, delivery, exchange, updating, and storage of the data on the geographic space.

THE SITUATION RELATED TO GEOTOPOGRAFIC SECURITY FOR POLICE PURPOSES

Geotopographic materials make up the foundation of geotopographic security. They are made in graphic, photographic, digital, numerical, and textual forms. Currently, the existing geotopographic materials for police purposes in Serbia are made by the Military Geographical Institute, the Republic Geodetic Authority, social institution and renowned privately-owned companies in the field of geo-information technologies. These materials most often include geodesic plans, topographic and thematic maps, photographic and digital geotopographic materials that do not have completeness and accuracy required for the police purposes they serve.

Thus, for instance, the police may need some specific data on characteristics of facilities in the location of an intervention or surrounding it if they want to devise efficient and effective tactics of deploying special police units in urban settings. Such data may be related to the purpose of a building, the number of floors, construction properties of the building (the type of materials used for construction, walls, type of the roof, existence of balconies or terraces, possibilities of crossing from one wing to another, basement, underground garages, passages, catering entrances, side exits, elevators, fire escape staircases, glazing, flammability, and communal utilities (remote heating, gas connection, cable television). The data may also focus on reconstruction works (facades, pitched roof extensions), the characteristic of urban roads (their capacity, vertical and horizontal traffic sig-

9 Вулетић, Ж., Илић, А., Милојковић, Б., (2009). *Модел геотопографског обезбеђења употребе јединица полиције при интервенцији на успостављању нарушеног јавног реда и мира у већем обиму*, Безбедност, год. 51, бр. 1-2/09, p. 331.
10 Павловић, М., (2003). *Појмовно одређење и могућа организација геотопографског обезбеђења наше војске*, Зборник радова ВГИ, број 11, p. 77.
11 Милојковић, Б., Алексић, В., Кицошев, С., (2011). *Туристичко-картографска визуализација Европског пешачког пута – деноице Е7 на планини Тари*, ТЕМЕ, год. 35, број 1/2011, p. 111.

nallization, public transportation stops, garbage containers, jardinières, etc.) and city greens (parks, lawns, flower beds, children's playgrounds, fountains, public drinking-fountains, walking paths, benches, dustbins, fences in such locations). In addition to this, they may be related to restaurants with outdoor gardens, parking lots and public garages, abandoned construction sites, kiosks, mobile souvenir and book shops, advertising billboards and columns, street lighting, electric supplies for city transportation systems, phone booths, power substations, power cabinets, hydrants, manholes, underground utility lines and facilities, etc.

Another problem appears to be the fact that the contents of topographic maps used so far have not been systematically renewed for 15 or even 25 years. This period of time is very long with respect to police needs, so that it does not comply with the results of global research which states that the optimal time interval for a systematic renewal of maps, suggesting that for a topographic map 1:25000 the period is 5 to 6 years, for example.[12] To illustrate the use of outdated topographic maps, we can mention the arrest of three Wahabites for which there were reasonable grounds to believe that they had committed a criminal act of terrorism in Novi Pazar in 2008, when the officers of the Counter-Terrorist Unit used topographic maps produced in 1967. Outdated maps are also used by the Gendarmerie in the ground security zone in the south of Serbia.

Besides the shortage of specialized maps and other topographic materials, it should be noted that the existing maps and plans are sometimes used with insufficient professional skill. Some maps and plans are of very modest practical value, since they have been designed ad hoc by police personnel of modest inventiveness who design such maps in terms of topography and topic without expert methodology prerequisites.

Competent departments of the Republic of Serbia MoI became aware of the mentioned problems in mid-1990s, but the projects aimed at improving the situation failed to be realized due to lack of funds. The project of introducing GIS technology for the Ministry of the Interior was initiated some ten years ago and has not been completed yet. This means that the police in Serbia still do not have an adequate system of geotopographic security.

Certain segments of the elaborated problem can be partly solved by making police officers familiar with the characteristics and possibilities offered by less known photographic and digital geotopographic materials created using the latest technology of remote sensing. This can be achieved by including such training in the curricula of vocational education and in-service training aimed at professional development in the field of police topography.[13] It should also be accompanied by legal, organizational, and material and technical solutions, which are further discussed in the following section.

REMOTE SENSING PRODUCTS AS PART OF GEOTOPOGRAPHIC SECURITY FOR POLICE PURPOSES

Remote sensing is a method of collecting and analyzing information about remote objects in geospace with no direct contacts with them.[14] The method implies the existence of electromagnetic radiation aimed at an object which is to be recorded, possibility of reflecting energy from the surface of the object and its being recorded using sensors, transmitting the recorded electromagnetic radiation to the receivers for processing into a digital image and interpretation thereof in order to gather information on the observed object. With respect to construction, the sensors can be photo cameras, multispectral scanners, and radars. In order to ensure that the sensors should register reflected electromagnetic radiation from the surface of the object in the observed geospace, they are placed on ground, air and cosmic platforms.

12 Милојковић, Б., (2007). *Савремени геотопографски материјали за потребе полиције – карактеристике и начин коришћења*, БЕЗБЕДНОСТ, год. XID, бр. 4/07, p. 109.

13 Milojković, B., (2011). CONTRIBUTION OF POLICE TOPOGRAPHY TO DEVELOPMENT OF HIGHER POLICE EDUCATION IN SERBIA, In Procesiding, International Scientific Conference "Archibald Reiss Days", 03-04.03.2011., Academy of criminalistic and police studies, Belgrade, p. 91.

14 Илић, А., Милојковић, Б., Секуловић, С., (2009). *САВРЕМЕНЕ ТЕХНОЛОГИЈЕ ЗА ПРИКУПЉАЊЕ И ОБРАДУ ПРОСТОРНИХ ПОДАТАКА,* У: Зборник радова „ОТЕХ 2009" – Научно-стручни скуп са међународним учешћем из одбрамбених технологија, Београд, 8-9. октобра 2009. године, p. 590.

The paper will focus on presenting the basic characteristics and possibilities offered by the use of remote sensing products with sensors on ground and air platforms, as used in the LIDAR and Pictometry technologies.

LIDAR (Light Detecting and Ranging) is a cheap, fast, and one of the most efficient methods of collecting large amounts of various data in the form of three-dimensional coordinates in geospace. Namely, LIDAR is a system that consists of a number of subsystems – modern technologies for data collection, including: 3D positioning using GNSS (GPS/GLONAS) technology (the position of the sensor is determined by GPS using phase measurements in the relative kinematics mode), inertial technology (IMU – Inertial Measurement Unit, registering the changes of position between two global positioning sessions or precise measurements of changes in direction), laser scanner, and digital photography. Optionally, it is possible to integrate additional sensors, such as, for example, an orthophoto sensor, based on a single shot or an infra-red cameras. The mentioned technological solutions provide the image of a terrain in the form of a very dense concentration of points, known as the 'point cloud'. Similar to radar technology, instead of using radio waves, LIDAR uses waves of a much shorter wavelength of the electromagnetic spectrum, usually ultraviolet, visible, or near infrared range of 1046 μm.[15] Integrated technologies allow direct measurement of three-dimensional structures and foundations of the terrains day or night, in shadowy or in cloudy conditions (it is not possible to use them in dense fog and in heavy rain), at distances ranging from 1 meter to several thousand metres.

Placed on a stand or a SUV, LIDAR (terrestrial, topographic, bathymetric) is used for recording individual object and smaller parts of the geospace at the distances of 1 to 300 m (building facades, monuments, bridges, tunnels, galleries, landslides, industrial plants, pipelines, dams, etc.) with maximum accuracy of 1-2 mm (Figure 1).

Figure 1. LIDAR installed on a stand or a SUV (Source: Wikipedia)

LIDAR can be installed on a helicopter or` an airplane (Figure 2) for capturing narrow strips of geospace, the so-called corridors such as road, railways, waterways, dams, or power lines.

15 Ђурђевић, З., Коларевић, Д., Ивановић, З., Милојковић, Б., (2012). *Примена Географских информационих система у криминалистичком профилисању,* У: Монографији „Криминалситичко профилисање", Криминалистичко-полицијска академија, Београд, p. 295.

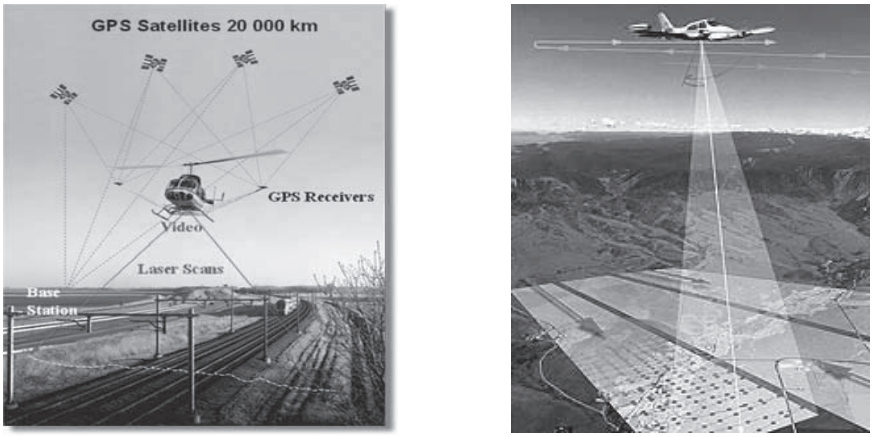

Figure 2. LIDAR installed on a helicopter or a plane
(Source: Geomatika and RGA)

LIDAR consist of a laser that is fixed and pointed at a mirror which rotates at a high speed. Laser beams are sent towards the Earth and the energy reflected from an obstacle is recorded (e.g. the crown of a tree or a building) and thus provides a cloud of points of known coordinates (Figures 3 and 4). Depending on the make, LIDAR can record a few dozen to a few hundred thousand points per second. If the terrain recording is performed with multiple backscattering (the laser strikes the tree-crown, bounces off, the rest passes to the ground, is reflected once again and LIDAR records different energies), it is possible to find out the height of vegetation, i.e. the height of the tree and the height of the tree-trunk from the topographic surface to the crown, as well as to determine the type of canopy of the forest based on the shape of the tree-crown, which may, for instance, be of importance for assessing the spread of fire or estimating biomass, growing plans, conservation and deforestation.

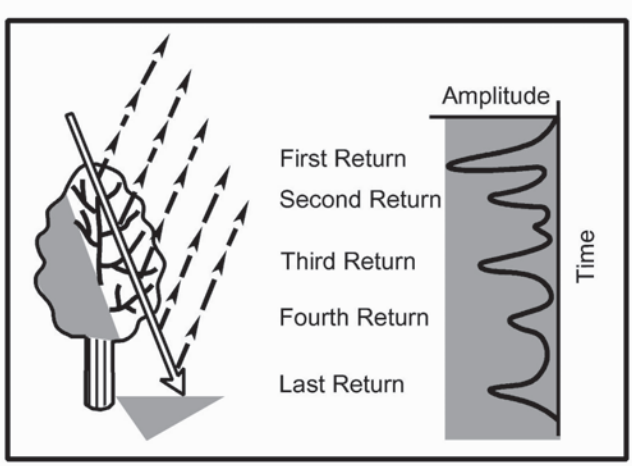

Figure 3. Recording terrain with multiple backscattering (edited by the author)

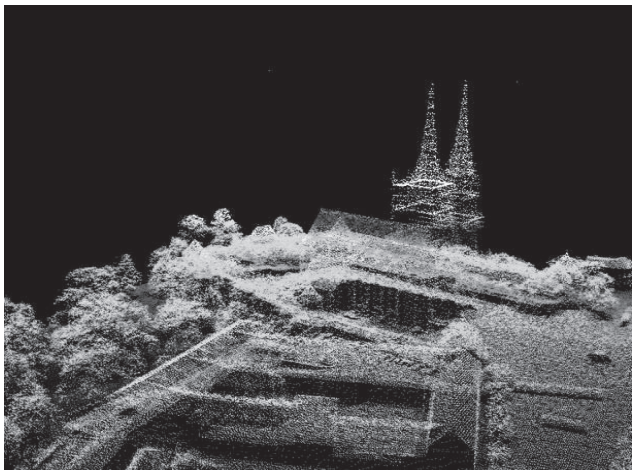

Figure 4. A view of the cloud of points after recording the terrain using the LIDAR system (Source: GEOFOTO)

More precise data can be obtained by flying over the terrain several times and using software for further processing makes it possible to easily remove all unnecessary objects and obtain empty terrain (Figure 5).

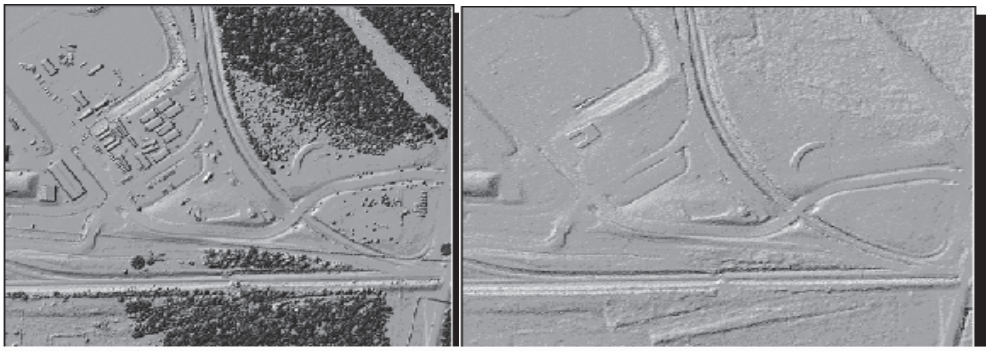

Figure 5. A terrain model obtained by using LIDAR placed on an airplane – the terrain with buildings and vegetation; 'empty terrain'.

Stationary mode LIDAR systems are important for the purpose of investigative activities, searching terrains, for example in the cases of searching for persons and objects in the terrain with lush vegetation and in the facilities of special construction (semi-translucent materials). LIDAR products are also important for visualisation and various analyses of geographic space (Figure 6) and present very important tools in developing a national infrastructure of geospatial data. [16]

16 Милојковић, Б., Млађан, Д., (2012). *NACIONALNA INFRASTRUKTURA GEOPROSTORNIH PODATAKA,* Kultura polisa, posebno izdanje I, godina IX, br. 18, p. 459.

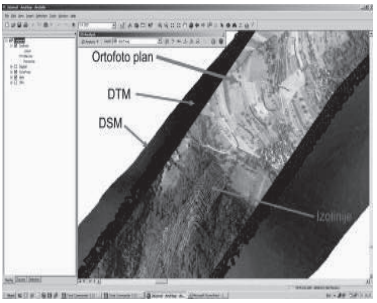

Figure 6. Visualisation and possibilities for using LIDAR products in analyzing geospace (Source: GeoGIS Consultants)

Pictometry (georeferenced vertical and oblique aerial imaging) is a unique, patent-protected geographic information system based on:

- orthogonal and oblique aerial photo imaging (Figures 7 and 8),
- modern software for presentation and analysis,
- a basis of pictometric shots (> 80 % are images which allow for a simple and complete presentation of an object, whereas orthophoto maps are only one component).

Figure 7. Classic orthophoto provides the view of the terrain from above (Source: Geo Info Strategies)

Figure 8. A pictometric slanting image shows facades of the buildings and their height *(Source: Geo Info Strategies)*

Pictometry is currently the cheapest and the fastest way to obtain comprehensive data on the geographic space by using oblique imaging of details in this space recorded from at least 12 different viewpoints, as well as integration with the existing data and GIS systems.

Oblique aerial images are obtained using a digital aerial photogrammetric camera with three sensors. One sensor is vertical, whereas the other two are placed at the angles of 45 degrees to the horizon. The system ensures simultaneous acquisition of vertical and inclined aerial images – one vertical and four images at the angle of 45 degrees to the horizon. The oblique shots are made in the direction of the four cardinal points (Figure 9).

The overlapping of images is ensured which makes it possible to provide 12 images for every detail in geospace from different perspectives.

The position and orientation during recording are determined by processing the recorded data on all the images. The recordings are delivered together with a digital model of the terrain, which be used for measuring coordinates of the points in the field, measuring the object surfaces, measuring the lengths and heights of the objects, determining materials of which the object is made and the number of floors, as well as monitoring changes in geospace (in constructed areas).

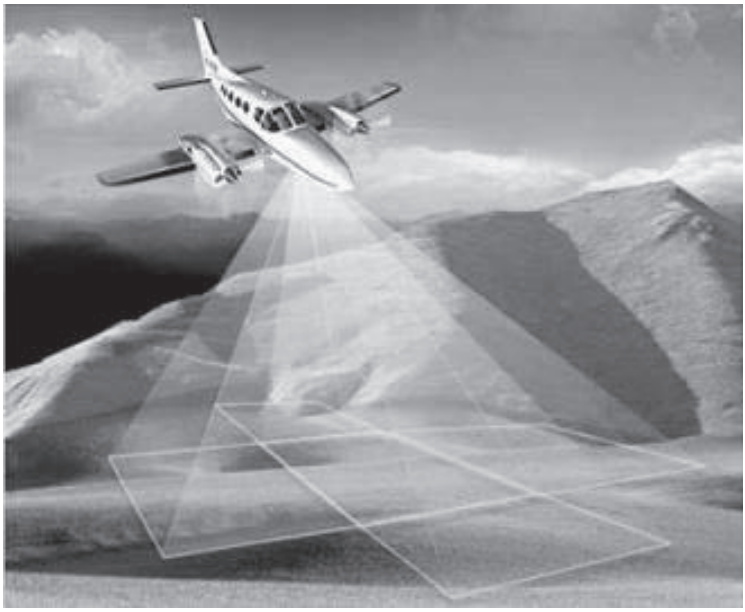

Figure 9. Aerial imaging using Pictometry (Source: Geo Info Strategies)

The directions of recording are similar to traditional photogrammetric recording. The distance between lines is usually 400 m, and the flight altitude is 1000 m. The data are stored on 400 GB 'swappy' discs. The Applanix POS 310 inertial system is used and the camera shutting is started by signals from GPS at the rate of 5 shots per each 1.5 seconds. The cameras are extremely reliable and have no moveable parts; they are shutterless, planimetric and manufactured by the US company Pictometry®. The recoding is performed using the Field Capture Software also developed by Pictometry® and a fully automated system of cameras. It should be pointed out that aerial recording depends on weather conditions. [17]

17 In 2010 and 2011, the company Geo Info Strategies performed the recording of the township of Kraljevo (180 km²) and the city centre of Belgrade (161km²). The recording was performed using a helicopter and a new digital aerial photogrammetric camera with the resolution of 6 cm and the obtained data are of a very good quality.

There are three options for viewing the data:

– **Independent software tools EFS (Electronic Field Study)** (Figure 10). The system developed by Pictometry® USA. Images can be integrated with the existing data (GIS, CAD and other spatial data).
– **Within the GIS projects** there are completed Active-X controls developed for: ESRI ArcMap, MapInfo, GeoMedia;
– **Using a web-browser on the Internet/Intranet**.

Figure 10. Independent software tool EFS (Electronic Field Study) for viewing and measurement (Source: Geo Info Strategies)

All the above mentioned systems allow: measuring coordinates, length, height, and size; integration of different sources of geographic data; integration of the address system in order to allow search based on addresses, postal codes or coordinates; exporting images in the jpeg format (Figure 11).

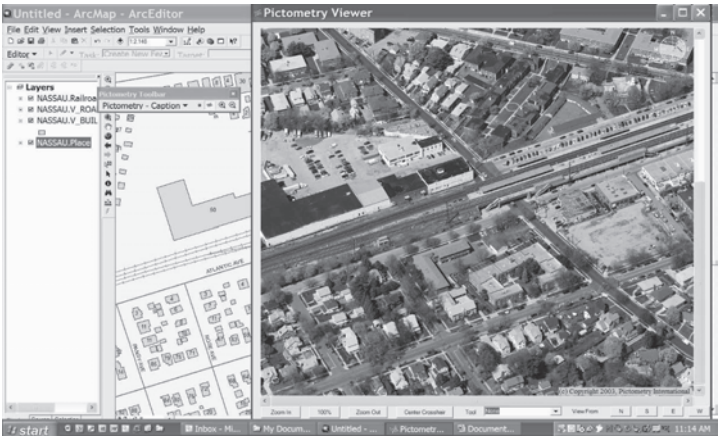

Figure 11. Integration of different sources of geospatial data for the purpose of searching (Source: Geo Info Strategies)

Using the specialized Delta Digitals software for creating digital plans and maps, Pictometry is used in 3D visualisation, and, combined with modern telecommunication technologies, also in the navigation systems (Figure 12).

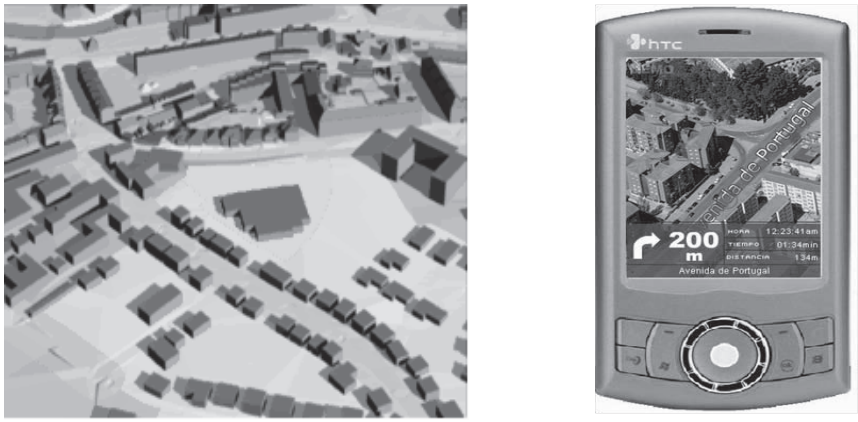

Figure 12. The use of Pictometry in 3D visualisation and navigation systems (Source: Geo Info Strategies)

Pictometry allows detection of possibilities for accessing a facility, measuring the height of the facility section through which it can be accessed or evacuated, viewing locations of communalutility equipment of the building (Figure 13).

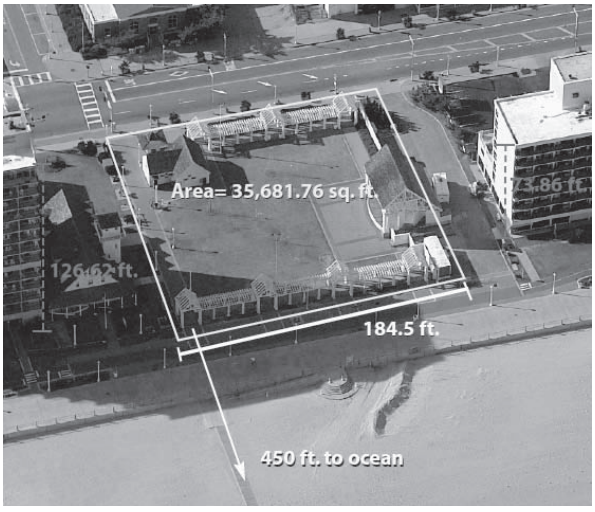

Figure 13. Detection of access possibilities and the entrance to the building; determining the performances of the building (Source: Geo Info Strategies)

Pictometry offers possibilities for completing information such as the current view of the location from which the call comes, viewed from different angles; a click of the mouse gives alternative directions of access to the given location. It also contributes to time saving by allowing the deployment of the unit closest to the given location; showing the required address from different directions in order to analyze access and possible evacuation routes; reducing the time needed for action by using previously prepared scenarios for more significant events and objects; providing backup for units in real time by providing

necessary information and finding optimal routes; better coordination of teams in the field; easier detection of obstacles and possible threats to the units deployed in the action; convenience of working in Pictometry in police vehicles equipped with computers and touch screens. Currently, a system is being developed for viewing the positions of persons on the move using the GPS system.

CONCLUSION

Particularly complex and high-risk security tasks of special police forces demand prompt decision-making, which in turn calls for providing specialized and up-to-date geo-topographic materials that contain reliable data on the geographic space, relevant for the assessment of the situation, i.e. for estimating the impact of favourable and unfavourable geospatial factors in order to select the type of engagement and planning the deployment of special units. The selection of the type is part of the responsibility of the commanding officer, and the initial head start is frequently decisive in complex security, weather, and geospatial conditions, so that the one who takes initiative may benefit from it. This initiative is achieved, at least to some extent, by good quality of geotopographic security in police interventions.

Geotopographic security is a dynamic and continuous research and production activity of the civilian and military geodesic services, which should constantly monitor the changes in the geospace, using contemporary technical solutions and technologies, and, after processing, present them in the form of geotopographic materials, which are to be delivered to their respective users, according to their needs. However, the national police force has not developed its own specialized system of geotopographic security.

The above presented information regarding the state of affairs in the area of geotopographic security and possibilities of using remote sensing products imply the following suggestions for a more holistic solution to the problem of geotopographic security for police purposes, especially their operative lines of work and the units for performing specialized security tasks:

1) Identify all state and private subjects engaged in collecting and processing geospatial data;
2) Devise a viable framework of legal norms that would provide for all state and private subjects that engage in any kind of geotopographic security to submit a copy of the produced geotopographic materials to the Military Geography Institute, the Republic Geodetic Authority and the competent organizational unit of the Republic of Serbia MoI – IT Management – GIS Department. The framework would ensure mandatory exchange of geotopographic materials among the three institutions with no financial compensation;
3) Restructure working assignments in the job description documents so as to bind all lines of the RS MoI employees to engage all police officers who perform routine and special police duties or are in charge or professional in-service training and development, so as to have a minimum of 10 % duties related to collecting geospatial data relevant for the police and updating geotopographic materials in the GIS environment, which are an integral part of the sector security files and plans for deploying special police forces, civil defence units, the fire brigade and rescue units;
4) Carry out a pilot project of collecting geospatial data by combining the forces and resources of the RS MoI Helicopter Unit and the Republic Geodetic Authority, focusing on the parts of the national geospace that is of particular importance for the police.

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POLICE INTEGRITY AND STANDARDS OF WORK PROFILE OF CRIME POLICE INVESTIGATORS[1]

Associate Professor **Zoran Djurdjevic**, PhD[2]
Associate Professor **Nenad Radovic**, PhD
Associate Professor **Slavisa Vukovic**, PhD
Academy of Criminalistic and Police Studies, Beograd

Abstract: The work efficiency of criminal police completely depends on the quality of investigators of the criminal police, investigators/crime officers. Along with the introduction and conclusion, this work also contains two logically connected parts. Considering the integrity of police profession as a starting point, the subject of research is defined in the introduction. A short description of basic characteristics of the police organization is given in the first part, specifically descriptions of indicators for the objective job analysis as one of the conditions for defining work and educational profile. General and specific elements of the work profile are presented in the second part. A great deal of attention goes to the necessity of defining special elements of work profile relating the sort of job and offences which proving is subject of investigation of one police officer/investigator. Some recommendations have been presented in conclusion and according to the author, those recommendations should be taken into consideration in order to improve the professional potential of police officers of criminal police department and in order to build mechanisms for the protection of police integrity.

Keywords: crime police, police integrity, police organization, investigator, work profile.

INTRODUCTION

The level of basic human rights and freedom is directly in connection with the level development of the integrity of police profession. The integrity of police profession is the image of the level of professionalism, and the most important indicators of professionalism are identified types of knowledge that are necessary for performing police work, i.e. the type of education of the members of the police profession. The indicators are also works and jobs defined by law and the ways of getting them done, so as organization, defined autonomy of work, the importance for society and ethical code.

Demand, which is in front of members of every profession (in Latin professio- public acknowledgment), is building, development and preservation of its own professional integrity, and, more precisely, elements which make difference between a profession and a job. Before we pay full attention to work profile, it is necessary to point out the elements of the integrity of police profession that determine the very profession.

Today, in the same way as through the history, we can find different definitions of the word and concept "integrity". In Latin, integrity means honor and consistency as opposed to inconsistency and not standing by ones principles. The concept 'integrity' is often put in the same basket and put on the same level as the concept of 'ethics'. Integrity has two mutually dependant components: structural and functional. Structural component of the integrity underlines that there is need for having certain characteristics, defined rules and standards of profession. An institution, profession for which we say that has integrity must have defined by law assignments and goals, ways of realizing them, authoriza-

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2 Zoran Djurdjevic, The Academy of Criminalistic and Police Studies, email//zoran,djurdjevic@kpa.edu.rs.

tion and responsibility, ways of managing them, coordination between the segments of organization, lines of communication among the members of the profession, rights and obligations of the employees, as well as mechanisms of acting in ethical manner. All this should provide legal and transparent actions, responsible managing and sanctioning of those who do not stick to the law and defined standards of professions. For a citizen who has the integrity we will say that he is honorable, honest, that he respects procedures and acts, that he contributes to the sanctioning when procedures and acts are broken. Functional aspect of the professional integrity is related to the social role of profession, and when the members of the profession achieve this aspect, they contribute to the functioning of the society, i.e. creating conditions that can help citizens to achieve their rights and obligations (professional integrity).

Structural component of the integrity of the police profession is determined by legal and sublegal acts. Police tasks are determined by law, in the same way as the procedure of performing them, legal authority of the police, work control, organization, conditions and way of hiring, duties and rights of police officers, forms of cooperation with other subjects.

Functional component, in the simplest way, we can define as protection of people and property. Miletic points out that there is need to broadly explain the concept of 'security and protection'. According to him 'protection' means active role of police in providing more than one sort of help, strengthening of the rescue function, humane and other interventions which are related with the protection of the right of people, immediate informing and in general, adjusting and adding more tasks which are necessary for security need of all people (Miletic, 2007).

Considering the great role that police profession has in society, integrity of the police profession is the subject of constant evaluating by the society. Police officers must be aware of this fact, and the fact that they are obliged to work on preserving and developing of the integrity of police profession.

Necessary indicators for evaluation of the integrity of police profession, besides expertise and knowledge of their members and employees are also the adopted and implemented ethical standards, standards of the organization and standards of evaluating of the quality of police work. Before we concentrate on main subject of analysis, and that is work profile, we will shortly look at the characteristics of police organization.

CHARACTERISTICS OF POLICE ORGANIZATION

Organization is the second column of the integrity of profession, which is characterized by legal system of internal elements so that it can perform its public and social function. Using these internal rules, we define a normative framework, which provides legal and democratic governing of the organization.

The need for dividing and assigning tasks and jobs becomes obvious when you have more than one person at work. The way one does this can have significant effect on results, efficiency and the quality of work. Structural framework of the organization is the mean for achieving purpose, realization of the tasks, which are under jurisdiction of the police. For Sennewald, organization is harmonized schedule of people with one goal or purpose, defined by areas of responsibility, communication lines and authority (Sennewald, 2011).

Police organization has two dimensions, horizontal and vertical. On horizontal level there are different areas of responsibility (different tasks), and on vertical level there is authority and or the position in organizational pyramid. Horizontal division defines the areas of responsibility, starting from Deputy Police Director, and vertical division shows different rank. Organizational chart shows division of duties, level and subject of responsibility and shows the relation between police officers (Who is superior? Who is at the same level and who are subordinates? Whose work are they responsible for?).

The line of authority means that there is direct relation between superiors and their subordinates, whose function is not only to control, but also to give advice. Organization must enable efficient communication and information flow towards different elements. When the tasks are assigned in the right way, the structure of the organization gets the form of a pyramid. In this way, every element has precisely defined functions and lines of responsibility so that the line of respon-

sibility can be easily tracked from the lowest level to the Police Director, who is, eventually, responsible for every function within the police organization. It is very important that police officers know exactly their place within the organization, whom they are responsible to and whom their superior is responsible to. If there is no clear division of responsibilities, there may be consequences in form of confusion and inefficiency in dealing with the tasks given. Sennewald emphasizes that besides that, organizational scheme is a subtle motivator because officers can have a clear picture about their professional career, when and which place on the hierarchy ladder they can be, if they are successful (Sennewald, 2011).

Important condition for efficient realization of tasks under police jurisdiction besides responsibility is also the authority. However, the superiors often do not stick to this principle and they are the ones who set the tasks and decide who is responsible for its realization, but they often limit the authority or resources needed. The simplest example is choosing people for the team or change of plan, where the ideas of employees how a certain task should be done are simple rejected and replaced by the ideas of their superior, and that can lead to frustration and people do not feel motivated. This does not mean the complete absence of sharing ideas and choosing the best alternative, which appears because of global and objective analysis and not as an imposed idea of the superior. One of the reasons that leads to this consequence is that the superiors, sometimes subconsciously, are not ready to transfer or divide responsibility. However, one should know that the success of the superior grows and falls with the success and mistakes of the subordinates.

The underpinnings of the organizational structure of the police are the description of the jobs under its jurisdiction. There is direct relationship between the strength and effectiveness of an organization and the quality of descriptions of the jobs for whose realization they have been founded. The quality of the description of one element of the organization, department can be defined in terms of (Sennewald, 2011):

1) Accuracy in and completeness of describing each job classification in the department
2) The matching of applicants/candidates to the job description
3) The individual employee understands of the department expectations, as expressed in the job description
4) The department's ability to design its training efforts to support the job descriptions, or, put another way, to match the training to the job descriptions
5) Performance evaluations based on the job descriptions
6) Job descriptions that currently reflect those tasks necessary for the larger organization (i.e. the whole police organization) to achieve its stated objectives.

In order to define the elements of work profile it is necessary to do a high quality and objective jobs analysis. The organization must have the ability to react quickly on the demands of necessary adjustments, so as the ability to identify such needs. The value of an organization is measured by the results in performing jobs under its jurisdiction. The results will depend on the level of expertise and the attitude towards the profession.

Extremely important element for the building of professional integrity is the conscious of police officers about harmonizing their personal identity with the professional one. The very absence of conscience about the significance and demands of police profession and objective perspective of one's own values and rights leads to abuse, when personal interests are put above the interests of profession of a police officer. Every police officer must know that his profession demands that interest of society is always put above the personal interest. In order to achieve that third dimension of personal integrity should be strengthen and it is shown through professional code of police profession. Professional code defines puts in order personal values, motivation and models of behavior of police officers with the goals and aims of police profession. By defining professional code, a clear system of values and mechanisms for protecting professional integrity is set up. However, setting up this code does not mean that it will be implemented.

Every police officer must be aware that implementation, respect, and following of ethical standards represent necessary mechanism for protection of professional integrity. Development and implementation of ethical standards should be achieved by joint efforts of police officers and scientists. This development should be done in three mutually connected directions (Pagon, 2000):

implementation of principles of applied ethics in police profession; setting up standards of ethical behavior in the work of police; and defining the way and content of education and training of police officers in the area of police ethics. In this way, the conscious about professional interests and need for improving credibility of police profession is developed.

STANDARDS OF WORK/JOB PROFILE

The most important resource of every, and also police organization is knowledge, and by saying this we come to job and educational profile of police officers. Work/job profile represents functional knowledge, integrated framework of necessary knowledge for solving real professional tasks within the responsibility that goes with certain job position. This is the basic element in the process of development and improvement of functional knowledge necessary for performing special kind of jobs related to police profession. Every activity in job/ work profile is in connection with the group of professional standards that are used for defining kinds and levels of knowledge needed for performing police work at specific work place in police organization (Djurdjevic & Radovic, 2012).

Profiles can be used in choosing employees, in promotion procedures, training evaluation and program of professional development.

In accordance with the integrity of police profession , and in order to provide effective performing of police jobs, it is crucial to regulate who and under what conditions can someone become a member of police profession, more exactly police officer of the criminal police?

Hiring new officers is one of the most important functions and responsibilities of the police management. Besides other relevant factors, the effectiveness of police organization directly depends on the quality of hiring.

Law on Police (article 110) clearly states the conditions for hiring: citizenship, education, age, psychophysical abilities for performing tasks and absence of security obstacles. As we can see, these are not elements of work profile, but the conditions that have to be met if the candidate wants to be hired.

In the analysis of work/job profile one should make difference between general elements of professional integrity (which can be drawn from its ethical component and which are contained in every police officer's work/job profile) and special elements, which are characteristic for police officers who perform certain type of job and where criteria for selecting and hiring is quantity of knowledge (ex. police officer of criminal police, police of general jurisdiction or traffic police).

Analyzing all the participants in applying law and security Gottschalk says that distinctions can be made between core (basic knowledge), advanced (different levels of specialization) and innovative knowledge (Gottschalk, 2007):

1) Core knowledge is the basic knowledge required to do the simplest, everyday jobs and tasks. This knowledge is the basics for applying higher level of knowledge but it also creates efficiency barriers if higher level of knowledge does not exist.[3]
2) Advanced, specialized knowledge is the knowledge that has impact on the work efficiency.[4]
3) Innovative knowledge is the knowledge that enhances the existing way of performing work.[5]

We can draw a conclusion from this and say that work profile, i.e. its special elements follow the specialization, which can be acquired by additional education and by adoption of the skills that are specific for a certain type of job. Specialization cannot be the possibility that is available for everyone. Chance for specialization should have only those who achieve extraordinary results and after certain time, which cannot be shorter than three years. On the other side, this means defining and respecting standards of management of employees and knowledge. For example, the first job position in crime police should be in the police precinct department, and then after certain number

3 This can be asservation (securing evidence) at the crime scene before anything else. Unskillful work can destroy evidence, so that further expertise would be useless and would not connect offender with the offence and crime scene.
4 This means different kinds of expertise, but also other types of knowledge like conducting conversation with some categories of people, or even analytical knowledge
5 This is knowledge that should be feature of managers on higher levels

of years, achieved results and attended and completed course the employee can get the position in specialized department of crime police.

General elements point out the attitude towards profession, more exactly the required way of realization of jobs under the police jurisdiction (including the relationship with the clients), colleague relationship, attitude towards the obligations and responsibility which police profession has towards society(raising security level). Identifying these elements is the subject of analysis during the process of hiring.

In order to get answers to all these questions, one of the first questions that should be asked during the job interview is the motive, why someone wants to work in the police? As desirable answers, Douglas mentions (Douglas, 2005):

1) To help people feel safe,
2) To take care that law is equal for everybody,
3) Improving the life quality of people,
4) Protecting borders and natural resources of the country,
5) To contribute to removing of the perpetrators of criminal acts from the streets.

The important feature of work profile is acting in accordance with the standards of behavior. Sennewald says that important standards for police and other employees' behavior are (Sennewald, 2011):

1) Security employees are habitually courteous and attentive to those seeking assistance, reporting conditions, or lodging complaints.
2) Security employees are punctual and expeditious in the discharge of their duties.
3) Security employees conduct themselves in a just and objective manner, treating all with equal reasonableness.
4) Security employees consistently exhibit a spirit of cooperation with all and do not allow personal feelings to interfere with their work.
5) Security employees conduct their personal and business life in an exemplary fashion that is above reproach in terms of stability, fidelity, and morality.
6) Security employees have a cheerful and positive approach to their work.

Michel Palmiotto and Alison Mckenney Brown (2008) point out the abilities which every police officer must have: memory; visualization; spatial orientation; verbal and written communication (grammar, sentence structure, schedule, clear and concise informing, writing reports about investigations); understanding verbal, written or read information; the ability of identifying problem in process of proving (mistakes in the process of presentation of evidence, identifying the possibility of witness to objectively perceive the criminal act in certain conditions); mathematics; deductive reasoning; inductive reasoning; objective analysis of all facts available.

According to Practice Advice on Core Investigative Doctrine, crime officers and investigators must show (ACPO, 2005):

1) **Communication**. Investigators must be able to communicate effectively and adapt to change. Through effective listening, interpretation and understanding information, they can formulate questions and test their understanding of the case. The ability to transmit and receive information accurately is crucial to the progress of an investigation.
2) **Sensitivity and Perception**. Investigators need to be conscious of their behavior and its possible effect on others. Avoiding stereotyping, personal bias and discrimination and being aware of other people's reactions will assist investigators to build and maintain productive relationships.
3) **Practical Support**. Investigators should identify the individual needs of victims and witnesses and, as far as is practicable, offer support and assistance in meeting those needs.
4) **Influencing Skills**. This is the ability to develop logical and practical arguments or proposals that are likely to identify solutions to problems and be able to persuade people to take a different stance or viewpoint.
5) **Assertiveness.** This is the ability to express beliefs and opinions in a forthright manner while taking account of other people's rights and opinions. The investigator's reactions to others should be positive and not aggressive.

Special element of work profile is the type of knowledge necessary for effective performing of police job. Features of this element are different regarding the fact that it is about work profile ele-

ments of a new police officer of crime police (newly employed, basic knowledge). Sometimes about types of criminal offences where he is active in terms of discovering or participating in the process of evidence presenting, or the level of specialization and place in hierarchy ladder, but also regarding the fact if it is preventive or repressive action. Besides all this, all police officers, who are involved in realization of reactive or proactive investigations, should be familiar with the latest methods of analysis. Also with organizations and evaluation of crime investigations (Djurdjevic, 2007).Of course, there is need for specializations when we talk about repressive action, but at the same time, there is need for realization of preventive activities (more about prevention of organized crime Vukovic & Radovic, 2012; Vukovic, 2010)

In his doctoral dissertation about police officers' practice in Sweden, Holgersson pointed out that there are many differences in the level of effectiveness between different police officers and he said that it is not unusual that a small group of police officers is responsible for realization of large number of tasks and jobs. Holgersson made a list of 30 different types of professional knowledge. Effectiveness of a police officer depends on them (Holgersson , 2005): the ability to recognize and use the skills of other police officers; the ability to show empathy towards a victim; the ability to discover interesting cases in terms of security; the ability to form suspicion; to communicate with individuals and groups; the ability to get an informant and interact with an informant; to make contacts and solve conflict situations when dealing with mentally ill and unstable persons; to protect and save lives and minimize the proportions of injuries; to be mentally healthy; to mediate a peace and solve problems; to have knowledge necessary for using data bases and computer technologies; to act preventive; to show authority and inspire with respect, to convey a serious and difficult message or information; to act in case of an attack; to take investigation measures at the crime scene; to keep feeling under control; to debrief an event; the ability to plan measures and actions; the ability to admit his/her own mistake; to use different communication aids; to conduct technical investigation; to give advice and instructions; to balance between common sense, ethics and legislation, to be creative in solving problems; the ability to find the offender; the ability to present a case to decision-makers.

If we talk about knowledge and abilities that are necessary for investigators to make effective locating, gathering and using the maximum amount of material generated by the commission of an offence to identify and bring offenders to justice. 'Practice advice on core investigative doctrine' explains that there are four areas of investigative knowledge required to conduct an effective investigation, these are (Centrex, 2005:168-169)

1) **The Legal Framework**. All investigators must have a current and in-depth knowledge of Criminal law and the legislation that regulates the process of investigation (Criminal Procedure Code). It is essential that all investigators should understand legal definitions of offences likely to be encountered and relevant rules of evidence.
2) **Characteristics of Crime**. Various crime acts and criminal behaviors mean different objects of evidence, victims and criminals' profiles. The wide range of criminal behavior, the circumstances in which it can occur and the numerous ways in which victims, witnesses and offenders are likely to behave, means that investigators can be faced with numerous sources that may produce material.
3) **National and Local Force Polices**. The Police Service is a complex organization with a wide strategic remit. In order to manage the range of tasks it is required to perform, the Police Service and its partners develop policies at both a national and local level. Many of these policies have a direct bearing on the conduct of investigations.
4) **Investigative Skills**. Investigations should be conducted with integrity, commonsense and sound judgment. Actions taken during an investigation should be proportionate to the crime under investigation. The success of an investigation relies on the cooperation of victims, witnesses and the community. Creative thinking requires the investigator to question the validity of all information. Investigators must continually question whether there may be another possible explanation for the material gathered.

Smith and Flanagan (2000) in the analysis of the Senior Investigative Officers-SIO, say that SIO plays a pivotal role within all serious crime investigations. Concerns have been expressed, however, that there is a shortage of investigators with the appropriate qualities to perform this role effectively.

The consequences of such a shortage could be severe. Not only that it might threaten the effective workings of the judicial process, it can also waste resources, undermine integrity and reduce public confidence in the police service. The principal aim of the research was to establish what skills, abilities and personal characteristics an SIO ought to possess to be effective in the investigation of low-volume serious crimes (stranger rape, murder and abduction). By applying a variety of analytical techniques, skills were identified for an SIO to perform effectively in the role. The 22 skills were organized into three groups (Smith and Flanagan, 2000):

1) **Investigative ability** (this includes the skills associated with the assimilation and assessment of incoming information, defining priority and making decision in what direction should investigation go)
2) **Knowledge levels** (this relates to the different types of underpinning knowledge an SIO should possess so that he can conduct the investigation successfully)
3) **Management skills** (these encompass a broad range of skill types that were further sub-divided between 'people management', 'general management' and 'investigative management'.

However, for them it was important to differentiate skills and abilities. The research revealed that the 'effective' SIO is dependent upon a combination of management skill, investigative ability and relevant knowledge across the entire investigative process. Although there is a connection between the phases of investigation and the dynamics, the investigation is divided into (Smith and Flanagan, 2000):

1) **Initial crime scene assessment**. This element of the investigative process begins with the initial notification of a potential serious crime and ends when s/he decides to release the scene. It involves assessing whether a serious crime has actually been committed and, if so, the immediate gathering of relevant information.
2) **Assessing incoming information** involves the further application of the investigative knowledge held by the SIO. This knowledge will help provide the basis for interpreting the behaviors exhibited at the crime scene. The SIO needs to assess incoming information to establish its likely value to the investigation and establish what the investigation now knows about the offence. This includes assessing the quality and relevance of all available facts/information. Therefore, the SIO has to readily assess the information, produce a cogent response and check whether it links with something already known.
3) **Selecting appropriate lines of enquiry**. This phase is closely linked to element two of the investigative process. Having assessed and evaluated information, the SIO may be in a better position to begin to formulate hypotheses about the offence and the offender. In turn, this will enable the SIO to select appropriate lines of enquiry. Although ultimately responsible for the decisions adopted, the SIO accomplishes this with the aid of the investigative team. Resource management was considered a key skill during this stage of the process. Hence, an SIO needs to possess a realistic awareness of what resources are available and how to obtain them; negotiation skills are vital in this respect. The dynamics and fluctuations within the investigative process say that SIO should know both where and when to concentrate the available resources.
4) **Case development.** By this stage of the investigative process, information has been integrated into the investigation and interpreted accordingly. Options for gathering additional information have been reviewed. If sufficient information has been gathered, it may be possible to move to the post-charge element of the investigative process. Otherwise, if additional information is required, the investigative cycle continues to iterate, new evidence identified and new lines of enquiry must be determined. At this stage, a SIO should not become much focused on a particular line of enquiry at the expense of others. An 'effective' SIO needs to remain dedicated, open-minded, analytical and ensuring that professional continuity is being maintained throughout the investigative process. Important skill, particularly in long running investigations, is the ability to motivate in order to maximize the results.
5) **Post-charge case management.** Knowledge of the legal process was perceived to be a key skill during this stage. It is also very important that the SIO should be able to communicate effectively with those involved in the legal process. While the direct involvement of

the SIO diminishes at this stage, the SIO still maintains overall responsibility for the by the court investigation; more precisely he/she (the results of investigation) has the right to be evaluated. Many of the SIOs felt that it was beneficial to attend court hearings. This enables them to observe the judicial process and learn the 'protocol' involved (e.g. the rules for presenting evidence and how such evidence can be tackled and interpreted by barristers).

Along with all these stated elements, investigators must be aware of all professional demands, and before all:

1) The need for following and respecting ethical standards, preserving and enhancing the integrity of police profession;
2) The need for acquiring and improving one's own professional potential;
3) The fact that it is necessary to transfer and share knowledge and by doing this contribute to improvement of the professional potential of whole organization;
4) Always present risks in performing police tasks, and
5) Demands and expectations of the society.

Basically, every police officer/investigator, if wants to be efficient must be aware of challenges and risks that he/she may come across in the investigations, professional and social demands, and also need for constant professional development, so that he/she can efficiently organize and perform the process of presenting evidence.

CONCLUSION

The most important aspect of professionalization means delegating professional jobs to those who have the knowledge necessary for performing them. Knowledge is the tool for solving problems. Acquiring knowledge and skill needed will improve and develop professional and consequently professional integrity. Element of expertise in work profile is not a passive creation; it is a dynamic category which requires constant development and improving. Without such approach, it is impossible to fulfill the demands that the society and profession imposes on every police officer.

One must bear in mind that there are no effective and rational inquiries without quality knowledge management. Objectively, different kinds of knowledge required for making decisions about different issues in the inquiry cannot have one person, and because of that one must know who has the expert and professional potential to solve a certain issue, i.e. who can one ask help from. Using the expert potential of the organization creates a need for knowledge sharing and management. That is not a process without any problems; and one of the most common ones is the readiness of police officers and investigators to share knowledge. In order to solve this problem, Luen and Al-Hawamdeh say there is a need for a culture characterized by openness, collaboration, and sharing among police officers. By connecting and applying different kinds of knowledge, a new knowledge is generated. (Garud & Kumaraswamy, 2005). Janz and Prasarnphanich (2003) point out that effective knowledge management is greatly dependent on an organizational culture. Gottschalk emphasizes that the problem of professional resources is the problem of motivation and reward related to the reuse of knowledge. Absence of rewarding such works represents a factor which is not motivating (Gottschalk, 2007).

The first condition for improving professional integrity is to form special working body, which would define and control the application of professional standards. The first thing that should be done is defining what the integrity of police profession is. If we concentrate on work, but also on educational profile, there are necessary tasks that should be realized:

1) Defining special standards of expertise as criteria for hiring process;
2) Defining a model of education, basic, higher and specialist level;
3) Defining a standard of police acting;
4) Defining model for establishing and sharing of knowledge (examples of positive practise);
5) Establishing objective model for evaluation of the work results;
6) Establishing standards of competency;

7) Making connection between working position and required level of knowledge (attended specialist course);
8) Establishing a register that contains data about all investigators, level of their expertise, education and level of professionalism (elementary education and specialist courses attended);
9) Establishing a model of employee management;
10) Establishing mechanisms for control of work standard, competence and employee management

Special place belongs to implementation and constant improvement and development of the code of police profession. Pagon believes that police ethics and integrity have key significance in professionalization of the police and that they are the best instrument for preventing corruption, brutality, human rights neglecting, as well as other forms of police deviancy (Pagon, 2000).

Police officers/investigators must not forget that the police profession is a humane one and that it demands that in every moment professional interests must be above personal ones.

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EUROPEAN UNION POLICE MISSIONS IN THE INTERNATIONAL CRISIS MANAGEMENT OPERATIONS

Assistant Professor **Marjan Arsovski**, PhD
Faculty of Security, Skopje, Republic of Macedonia

The police missions within the framework of the European and Security and Defense Policy have given the European Union (EU) a central role in international crisis management operations. The creation of EU capacity for crisis management has been set by the European Councils of Nice and Goteborg in order to be capable of covering a full range of police missions from training, advisory and monitoring missions to executive missions. To meet these EU goals at the Police Capabilities Commitment Conference in 2001, the Member States of the Union undertook responsibility to provide 5,000 police officers by 2003, out of which 1,400 police officers could be deployed within thirty days. The ongoing two police missions EU Police mission in Afghanistan (EUPOL AFGHANISTAN) and EU Police Mission in the Palestinian Territories (EUPOL COPPS) present test of EU police capabilities. They were established for monitoring, mentoring and advising the two countries' police forces thus helping to fight organized crime as well as promoting European policing standards.

In this context the research paper aims to show the positive and negative experiences of the EUPOL AFGHANISTAN and EUPOL COPPS in the Palestinian Territories, thus serving to point out the perspectives for future developments and improvements in conducting police missions at the international scene by the European Union.

Keywords: police missions, European Union, crisis management operations, European policing standards.

INTRODUCTION

The world is changing and Europe faces an increasingly complex and uncertain security environment. The European Union is the world's largest trading and economic bloc (and has the world largest GDP), there is a growing demand for the European Union to become more capable, more coherent and more strategic as a global actor. The EU disposes of a unique array of instruments to help promote peace and security where needed. The Foreign policy or the external representation of the European Union (and institutions) has its development from the very beginning of the establishment of the Community in 1957, by cooperation between member states, when member states negotiated as a bloc in international trade negotiations under the Common Commercial Policy. In 1970, with the establishment of European Political Cooperation a step was made for a wider ranging coordination in foreign relations, which created an informal consultation process between member states with the aim of forming common foreign policies. Since 1987 with the Single European Act, the European Political Cooperation has been introduced and functioned on a formal basis. In 1992, with the Maastricht Treaty, European Political Cooperation was renamed as the Common Foreign and Security Policy (CFSP). The aims of the Common Foreign and Security Policy are to promote both the EU's own interests and those of the international community as a whole, including the furtherance of international co-operation, respect for human rights, democracy, and the rule of law. Concerning the security policy of the European Union, it does not have one unified military. The predecessors of the European Union were not devised as a strong military alliance because NATO was largely seen as appropriate and sufficient for defense purposes and right after the Second World War the Europeans did not trust each other to create mutual army (especially Germany). 21 of the EU members are members of NATO while the remaining member states follow policies of neutrality. Since the Cologne European Council in 1999, the Common Security and Defense Policy (or CSDP) has become a significant part of the CFSP. The EU itself has limited military capability, member states are responsible for their own territorial defense and a majority of EU members are

also members of NATO, which is responsible for the defense of Europe. There was also the Western European Union (WEU), which was a European security organization related to the EU. In 1992, the WEU's relationship with the EU was defined, when the EU assigned it the "Petersburg" (humanitarian missions such as peacekeeping and crisis management). These tasks were later transferred from the WEU to the EU by the Amsterdam Treaty; they formed part of the new CFSP and the Common Security and Defense Policy. Elements of the WEU were merged into the EU's CFSP and the President of the WEU was also the High Representative. In 2010, the merger led to the final dissolution of the WEU (30 June, 2011). By that the Western European Union, a military alliance with a mutual defense clause, was disbanded in 2010 as its role had been transferred to the EU.

From the very beginning of the creation of the European Security and Defense Policy (ESDP) as part of the Common Foreign and Security Policy (CFSP) of the European Union (EU), it has never been stressed that there will be military component that in any way would be parallel to that of the United States and that would jeopardize its global ambitions. On many occasions it was stressed that there has been direction towards resolving regional crises and in no way implies the creation of European army and police. With the end of the Cold War, Americans and Europeans on several occasions entered in conflict about the need for the existence of North Atlantic Treaty Organization (NATO) and American domination in it. This dilemma was resolved with the wars in Yugoslavia where for the first time from its existence, an action by NATO was conducted, which justified its existence. Unlike previous relations, marking the intervention in Iraq a split was made in transatlantic relations between the European Union nations which started seriously building of coherence and credibility in the European CFSP. Europe increasingly emphasized the need of autonomy for the European defense and security system, despite strong ties with NATO and dominant role of the United States in it. Taking into account all the circumstances, serious development of ESDP is seen after the Kosovo crisis in 1999, which later was the main encouragement for the spectacular growth of the second pillar.

Following the Kosovo war in 1999, the European Council agreed that "the Union must have the capacity for autonomous action, backed by credible military forces, the means to decide to use them, and the readiness to do so, in order to respond to international crises without prejudice to actions by NATO." To that end, a number of efforts were made to increase the EU's military capability, notably the Helsinki Headline Goal process.

Thus from 2003 EU's ESDP began to function effectively by conducting its first military and police missions in Europe, concretely the Balkans, and at international level beyond the European continent, such as the Middle East and Africa.

BODIES RESPONSIBLE FOR CONDUCT OF CIVILIAN COMMON SECURITY AND DEFENSE POLICY MISSIONS

High Representative of the Union for Foreign Affairs and Security Policy

The coordinator and representative of the CFSP within the EU is the High Representative of the Union for Foreign Affairs and Security Policy (currently Catherine Ashton) who speaks on behalf of the EU in foreign policy and defense matters, and has the task of articulating the positions expressed by the member states in these fields of policy into a common alignment. The High Representative heads up the European External Action Service (EEAS), a unique EU department that has been officially implemented and operational since 1 December, 2010 on the occasion of the first anniversary of the entry into force of the Treaty of Lisbon. The EEAS will serve as a foreign ministry and diplomatic corps for the European Union.

Political and Security Committee

The Political and Security Committee (PSC or "COPS" from its French acronym) first established as an interim body in 2000 is described by the Nice European Council Conclusions as *sine qua non* of the European Security and Defense Policy and the Common Foreign and Security Policy. Its main functions are keeping track of the international situation, and helping to define policies

within the Common Foreign and Security Policy (CFSP) including the CSDP. Its responsibilities include the drafting of opinions for the Foreign Affairs Council, which is one of the configurations of the Council of the European Union, and exercising "political control and strategic direction" of EU crisis-management operations. It prepares a coherent EU response to a crisis and exercises its political control and strategic direction. The committee is a standing body and is composed of national representatives of "senior/ambassadorial level" and meets at least twice a week (Tuesdays and Fridays) in Brussels. It is chaired by the European External Action Service.

CIVILIAN PLANNING AND CONDUCT CAPABILITY (CPCC)

The Civilian Planning and Conduct Capability (CPCC) has a mandate to plan and conduct civilian Common Security and Defense Policy (CSDP) operations under the political control and strategic direction of the Political and Security Committee; to provide assistance and advice to the High Representative, the Presidency and the relevant EU Council bodies and to direct, coordinate, advise, support, supervise and review civilian CSDP operations. CPCC works in close cooperation with other crisis management structures within the European External Action Service and the European Commission. The CPCC Director, as EU Civilian Operations Commander, exercises command and control at strategic level for the planning and conduct of all civilian crisis management operations, under the political control and strategic direction of the Political and Security Committee (PSC) and the overall authority of the High Representative for Foreign Affairs and Security Policy Catherine Ashton. From the picture we can see Mr Hansjörg Haberv - EU Civilian Operations Commander and Director of the EU Civilian Planning and Conduct Capability (CPCC). There are currently seven civilian CSDP missions supervised and supported by CPCC: EULEX Kosovo, EUMM Georgia, EUPOL COPPS and EUBAM Rafah in the Palestinian Territories, EUJUST LEX Iraq, EUPOL Afghanistan and EUPOL RD Congo. There are three new missions due to be launched in 2012: EUAVSEC South Sudan, EUCAP NESTOR (Horn of Africa and Western Indian Ocean) and EUCAP SAHEL Niger.

FIRST EUROPEAN UNION POLICE MISSIONS AT INTERNATIONAL LEVEL

After the decade-long debate, European Union Police Mission in Bosnia and Herzegovina was the first police operation of the European Union by which it demonstrated its own military and police capabilities and symbolized the cornerstone for future development of its European Security Defense Policy (ESDP). European Union Police Mission (EUPM) continues an already existing engagement by the United Nation (UN) with the Mission of International Police Force established after the signing of the Dayton Agreement in 1995, which ended the war in Bosnia and Herzegovina (Bosnia).[1] Hence the basic objective of the EUPM mission is to preserve the implementation of police aspects of the Dayton Agreement and providing a safe and security environment in Bosnia and Herzegovina. It also represents a supplement to the already present European Union military mission called "Althea".[2] The takeover of the EU mission from the UN has been obtained by prior approval from the Security Council with the adoption of the UN Resolution 1575.[3]The European Union launched missions in Republic of Macedonia and Bosnia as a continuance on a previously installed UN and NATO missions. The cooperation of both institutions for smooth transfer of the operations between the two organizations is systematically regulated in a Joint Declaration in 2003 in the field of crisis management.[4] At the summit held in Copenhagen on 12th and 13th of December 2002, the decision for the EU to take the NATO military mission in Macedonia was confirmed,

1 Council Joint Action 2002/210/CFSP establishing the European Union Police Mission, OJ L 70, 13.3.2002, p. 1–6.
2 Council Joint Action 2004/570/CFSP of 12 July 2004, on the European Union military operation in Bosnia and Herzegovina OJ L 252, 28.7.2004, p. 10–14
3 Resolution 1575 (2004) adopted by the Security Council at its 5085th meeting, on 22 November 2004.
4 Declaration by the European Council on EU and UN cooperation in military crisis management operations, 17 June 2004.

where Common Foreign and Security Policy (CFSP) bodies were given assignments to prepare plans for carrying out the operation and Joint Action has been adopted for that reason.[5] At the end of the military mission called "Concordia", the EU continued its engagement in Macedonia, with the changed nature of presence which was the police mission, called Proxima.[6] The aim of the mission was to represent an expression of continued support of the European Union to stabilize the situation in the country, implementation of the Ohrid Framework Agreement and the efforts for full integration in the European Union.

These missions were a practical implementation of the regulation foreseen in the Treaty of Lisbon foreseeing the possibility of the Union to conduct action in the crisis regions and countries (the same attempt was made with rules drafted in the Constitution of European Union which failed).[7] Nowadays the European Union Special Representative (High) plays an important role as an official with the "double hat" who should be deputy president of the European Commission's European Security and Defense Policy and be responsible for external relations of the Union in order to strengthen coherence between the first and second pillar.[8]

Disagreements between the Council Secretariat as legislative power on one side and the Commission as executive power on the other side based on grounds of separation of powers struggle for prestige and mutual competition.

Accordingly the coordination given by the Council of the European Union, the EU Special Representative through weekly informal meetings coordinates all European and international institutions active in the stabilization of the crisis in Macedonia. At these meetings the Special Representative of the EU attended as a representative of the Presidency of the EU.

For assurance of full coherence between EU and other International Community Organizations support in the field of police, the Council has decided that an expert level "Police Co-ordination Group" be created within the existing framework of the current international co-ordination structures. The Police Co-ordination Group has been chaired by the Police Advisor enacted by the EU Special Representative which has regularly brought together the EUPOL Head of Mission and the EC Police Reform Project Coordinator, as well as representatives from the EU Delegation, the EU Member States, the OSCE and other international actors actively engaged in supporting the Macedonian police.[9]

EUROPEAN UNION POLICE MISSION IN AFGHANISTAN

After the withdrawal of the British from neighboring India in 1947, the United States and the Soviet Union began spreading influences in Afghanistan, which led to a bloody war between the US-backed mujahedeen (with Rambo) forces and the Soviet-backed Afghan government (nowadays American's) in which over a million Afghans lost their lives. This was followed by the 1990s civil war, the rise and fall of the extremist Taliban government (overtook the Soviet-backed Afghan government) and the 2001–present war. In December 2001, the United Nations Security Council authorized the creation of the International Security Assistance Force (ISAF) to help maintain security in Afghanistan and assist the Karzai administration.

Three decades of war made Afghanistan the world's most dangerous country, including the largest producer of refugees and asylum seekers. For that reason the international community is rebuilding war-torn Afghanistan.

In the framework of its comprehensive approach towards Afghanistan, the EU has launched an EU Police mission in Afghanistan (EUPOL AFGHANISTAN) in mid-June 2007.[10]

5 Council Joint Action 2003/92/CFSP of 27 January 2003, on the European Union military operation in the Republic of Macedonia, Official Journal of the European Union (OJEU). 11.02.2003, No L 34, p. 26th

6 Council Joint Action 2003/681/CFSP of 29 September 2003 on the European Union Police Mission in the Former Yugoslav Republic of Macedonia (EUPOL "Proxima") OJ L 249, 1.10.2003, p. 66–69.

7 Treaty establishing a Constitution for Europe, Official Journal of the European Union C 310, 16 December 2004.

8 Consolidated version of the Treaty on European Union, Official Journal of the European Union C 83, 30.3.2010, p. 1-388

9 Coordination aspects of Proxima, 13532/1 REV 1, COSDP 590, Council of Europe Union Brussels, 16 October 2003.

10 Council Joint Action 2007/369/CFSP of 30 May 2007, on establishment of the European Union Police Mission in Afghanistan (EUPOL AFGANISTAN)

On 18 May 2010, the Council has extended the mission for a period of 3 years, until 31 may 2013.[11]

On 26 April 2010, the Council welcomed the strategic reform efforts of EUPOL AFGHANISTAN and its continuous work in strengthening the Afghan police and rule of law sector. The Council recognizes the importance of EUPOL Afghanistan becoming the coordinator for the development of two pillars of the Afghan National Police, namely the Afghan Civilian Police and the Afghan Anticrime Police as requested by the Afghan Minister of the Interior. Sustainable civilian policing structures are a crucial element of the transition strategy agreed upon in the London Conference.

The mission aims at contributing to the establishment of sustainable and effective civilian policing arrangements under Afghan ownership and in accordance with international standards. More particularly, the mission monitors, mentors, advises and trains at the level of the Afghan Ministry of Interior, regions and provinces. EUPOL AFGHANISTAN builds on the efforts of the GPPO (German Police Project Office) and other international actions in the field of police and the rule of law. It aims to bring together individual national efforts under the EU hat, taking due account of the relevant Community activities. Its activities aim at covering the whole of Afghanistan.

The Council welcomed the continued progress made by the EUPOL AFGHANISTAN at strategic, operational and tactical levels in line with its strategic objectives. The Council acknowledged the progress and expansion of the City Police Projects in building effective city police forces throughout the country. The Council also welcomed the emphasis of the mission on close coordination of its activities with other EU instruments and key partners, especially the recently activated cooperation with the NATO Training Mission Afghanistan.

EUROPEAN UNION POLICE MISSION IN THE PALESTINIAN TERRITORIES (EUPOL COPPS)

The European Union has played an important role working toward a resolution to the Israeli-Palestinian conflict, and continues to be a primary architect of the "Road Map for Peace", along with the UN, Russia, and the United States in the Quartet on the Middle East. On 22 July 2004, the High Representative met Ariel Sharon in Israel, where Sharon had originally refused to meet Solana, but eventually accepted that, whether he liked it or not, the EU was involved in the Road Map. He criticized Israel for obstructing the Palestinian presidential election of 9 January 2005, but then met Sharon again on 13 January.

On 14 November 2005, the Council established the EU Police Mission in the Palestinian Territories (EUPOL COPPS) under the EU Common Security and Defense Policy (CSDP).[12] On 25 June 2012, the Council of the EU decided to extend the mission's mandate until 30 June 2013.[13]

The EU Police Mission for the Palestinian Territories, code-named EUPOL COPPS, has a long term reform focus and provides enhanced support to the Palestinian Authority (PA) in establishing sustainable and effective policing arrangements.

On 26 April 2010, the Council welcomed the work carried out by EUPOL COPPS in the establishment of sustainable and effective policing arrangements and in the criminal justice sector. The Council looked forward to initiatives aimed at enhancing the mission's impact and contribution to the capacity building of the PA and to this end encouraged the further strengthening of the mission's action at the strategic, operational and field level in close cooperation with Palestinian counterparts and other stakeholders.

11 Council Decision 2010/279/CFSP of 18 May 2010, on the European Union Police Mission in Afghanistan (EUPOL AFGHANISTAN)

12 Council Joint Action 2005/797/CFSP of 14 November 2005 on the European Union Police Mission for the Palestinian Territories

13 Council Decision 2012/324/CFSP of 25 June 2012 amending and extending Decision 2010/784/CFSP on the European Union Police Mission for the Palestinian Territories (EUPOL COPPS)

CONCLUSION

Under the Common Security and Defence Policy (CSDP), the EU operates civilian and military missions worldwide for the purpose of building security around the world. These missions carry out a variety of tasks from border management to local police training. The best examples for that purpose are the EU Police Mission in the Palestinian Territories (EUPOL COPPS) and EU Police mission in Afghanistan (EUPOL AFGHANISTAN). In this context, the Palestinian Territories and Afghanistan are indicated as a success story and provided the EU as a useful testing ground for future efforts in crisis management, including police reform. The EU experience in the Middle East has allowed the EU to mount up significant knowledge in the development of crisis management tools, capabilities and institutions in the European Commission and the Council Secretariat.[14] The Council of the European Union agrees that in addition to continuing with civilian missions and military operations, the EU has to improve its ability to foster civilian-military cooperation and to use the Common Security and Defense Policy (CSDP) as a part of coherent EU action, which should also include political, diplomatic, legal, development, trade and economic instruments. The positive experience from implementing projects in the field of police work served as a model for establishing a standard that would serve all future police missions of the European Union.

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CONTRADICTION OF DEMAND AND ROLE CONFLICT IN POLICING[1]

Lecturer **Zoran Kesić,** Mr. Sci.[2]
Assistant Professor **Radomir Zekavica**, PhD[3]
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Because of the distinctive features and unique position in a society police officers are often faced with a number of specific problems, which could be described as "contradictory demands and role conflicts in policing." It is actually the situation when the police are requested at the same time completely different demands or the expectations of police action are contradictory. In such circumstances, police officers are not sure how to act, or how to solve a specific problem, knowing that whatever decision they make it can be easily interpreted as inadequate. In other words, conflicting demands cause conflict between the different roles of the police, while increasing dilemma of police members which role in the concrete case to accept. This complex problem is usually manifested in the form of two contradictory demands - efficiency/legality and law/policy and one conflict of roles - crime fighter/ social worker.

Keywords: policing, efficiency, legality, policy, crime fighter, social worker.

INTRODUCTION

Among many challenges the police officers are faced with in the performance of official duties, a specific set of problems stands out qualified as "contradictory demands and role conflicts in policing." Before its broader consideration it is necessary to differentiate this complex phenomenon from the phenomena similar to it. In this sense, the difference that Jones and Butler make between *role conflict* and *role ambiguity* in policing seems important. As these authors explain, the police role may be unclear when the role expectations, obligations and privileges are not clarified or the supervisor's feedback is inadequate, while the role conflict arises in the following three situations: when an individual is unable to perform a role due to his own inadequacies; when the role produces conflicting expectations; and when an individual has to perform several roles at the same time, which may require asynchronous behavior.[4]

As we can see, the concrete role is unclear when its purpose cannot be properly interpreted, primarily due to the lack of reliable information, which is necessary for the identification of the concrete role purpose. In contrast to this situation, in the situation of the role conflict the holder is familiar with the essence and purpose of his role, but its realization is impossible or difficult, because it is accompanied by various obstacles and dilemmas. Also, the source of the conflict may be the concrete role performer's personal defects, and also the others' contradictory demands and expectations of the role. Discussing this issue, Lawrence Sherman points out that in most organizations the priorities are set by the *dominant coalition* made up of people from the organization and its clients. He, however, points to the fact that expectations among members of the coalition are sometimes opposite, that there are those who find it imperative to achieve priorities, even at the cost of use of deviant means, while others are opposed to this approach.[5]

The fact is that the police officers meet with various contradictions and conflicts in the performance of their function. Many of them result from (non)applicability of formal standards and work

1 This paper is the result of the research on the following projects: *"Status and Role of the Police in a Democratic State"*, which is financed by the Academy of Criminalistic and Police Studies; the Scientific Research Project entitled *"Development of Institutional Capacities, Standards and Procedures for Fighting Organized Crime and Terrorism in Climate of International Integrations"*, which is financed by the Ministry of Education and Science of the Republic of Serbia (No 179045), and carried out by the Academy of Criminalistic and Police Studies in Belgrade (2011-2014). The leader of the Project is Associate Professor Saša Mijalković, PhD.
2 Corresponding Author: zoran.kesic@kpa.edu.rs
3 Corresponding Author: radomir.zekavica@kpa.edu.rs
4 McNeill, M.: *Alcohol and the police workplace – factors associated with excessive intake*, Report Series, No. 119.1, National Police Research Unit, Adelaide 1996, p. 5.
5 Newburn, T.: *Understanding and Preventing Police Corruption: Lessons from the Literature*, Home Office – Policing and Reducing Crime Unit: Research, Development and Statistics Directorate, London 1999, p. 16.

procedures in solving practical problems in the field. As Egon Bittner explains: "There is a sharp contrast between the extensive rules on which managers base their requirements and expectations from the officers, on the one hand, and the absence of clearly formulated directives concerning performance in the field, on the other hand."[6] However, in addition to these internal contradictions, a more serious problem is perhaps reflected in ambiguous demands presented to the police by external agents and, above all, by the citizens themselves. The citizens' expectations of the police are mainly directed towards meeting the five basic principles - legitimacy, objectivity, effectiveness, transparency and humanity. However, as Slaviša Vuković notes: "Citizens can point out certain expectations in the foreground, while they may consider the others less important. For example, after the terrorist attacks or the brutal murder the citizens may underline a greater demand for more effective policing and the expansion of police powers, while in the case of exceeding these same powers they can require their reduction and greater control over the police work."[7]

It is certain that the citizens' expectations from the police vary widely and that, accordingly, their demands are often contradictory. In these situations, the police officers can easily face the dilemma of how to act and what role to take. On such occasions they are usually supposed to choose between two extremes. On one side, there is a noble and good-natured police officer who relies on preventive activities and service-style work, performing his duties respecting the fundamental rights and freedoms of all participants in the events, while on the other side there is a passionate crime fighter who expresses his commitment to work through the repressive activity, subordinating sometimes legitimate means to an imperative to achieve a professional goal. This conclusion gives rise to certain questions, and above all the following: • what criteria does a police officer use when choosing a role and how does he adapt his actions to a particular situation • is overlapping of two completely different personalities in one man possible, which, if necessary comes to light. A partial answer to the first question is given by the studies on discretionary power of the police[8], while the authors who point out to a police officer's numerous variations deal with the second question in more detail.[9]

It is also important to emphasize that the role conflict often occurs due to aspiration of simultaneously achieving multiple roles, which in the context of policing usually happens in the situation where the police try to unite preventive and repressive influences in one action. Time, however, has shown that such complex aspirations cannot be achieved at the same time, but that one goal is mostly achieved at the expense of another. The only question is to which goal a higher priority is given in work.

KEY CONTRADICTIONS AND CONFLICTS IN ACHIEVING POLICE FUNCTION

Efficiency / Legality

The constant pressure to increase work efficiency with simultaneous obligation to respect rules and procedures while acting, creates one of the most controversial problems in the implementation of police activities in a democratic society, or, as Jerome Skolnick explains "The tension between the operational consequence of ideas of order, efficiency and initiative, on one hand, and law, on the other hand, represents a principled problem of the police as a democratic and legal organization."[10]

It is known that the principle of legality is one of the most important prerequisites of functioning of the state based on the rule of law, both in terms of human rights and freedoms, and in terms of legal security and rule of the law. It ensures the equality of all citizens before the law, as an expression

6 Dempsey, S. and Forst, S.: *An Introduction to Policing* – third edition, Belmont 2005, p. 306.
7 Вуковић, С.: Принципи законитости и легитимности у поступању полиције у превенцији криминалитета, *Безбедност* бр. 1-2 (2009), стр. 185.
8 see Кесић, З.: Прекорачење и злоупотреба полицијских овлашћења у сенци дискреционе моћи полиције, *Безбедност* Vol. 53 No. 2 (2011), стр. 66-89.
9 see Зекавица, Р. и Кесић, З.: Карактеристике полицијске субкултуре и њихов утицај на однос полиције према праву и људским правима – у: *Супротстављање савременом организованом криминалу и тероризму – књига III* (Мијалковић С., ed.), Криминалистичко-полицијска академија, Београд, 2012, стр. 59-74.
10 Skolnick, J.: *Justice without Trial: Law Enforcement in Democratic Society* – fourth edition, New York 2011, pp. 6.

of the general will, but it also prevents individuals' self-will. It is also undisputed that the police officers generally understand that their function must be balanced by legal norms. However, they are also aware that their professional interest is very burdened by them, because these same standards are often incompatible with the police role realization. More specifically, the law frequently imposes restrictions to the police with regard to the effective order maintenance as their primary task.

Judging by the numerous results of surveys focusing on police officers, the request for police to be effective and to work according to the law at the same time, is not always feasible in practice. McNamara reported that 80% of interviewed police officers in his study agreed that "it is impossible to always fully follow the rules, and thereby effectively carry out assigned tasks".[11] According to the results of the U.S. Department of Justice research, 43% of 925 randomly selected members of the 121 police department shared belief that "consistent compliance with rules is not compatible with the requirement to do the job properly".[12] Of 249 interviewed members of Belgrade police departments 57.5% believed that "strict observance of the law in the task performance can tie hands of the police and prevent them from doing the job effectively".[13]

The fact is that officers often complain that their work is burdened with numerous rules, and that consistent compliance with them without exception is actually impossible. Therefore, in time, they develop animosity towards legal rules. Discussing the issue, David Bayley notes that the police animosity toward the law is not normative but cognitive in nature. As this author points out: "The police know very well what is good and what is bad. The problem is that the police firmly believe that in order to increase the efficiency, the law violation is sometimes inevitable."[14] As a result of this widespread belief certain illegal actions among officers can gain a completely legitimate status, such as, for example, *making the case* - ensuring conviction of dangerous criminals by manipulation and evidence falsification. The fact that police officers often justify such actions as serving the *public good*,[15] only further strengthens its justification within police subculture.

It is, however, important to emphasize that the initiative for violation of the law does not come exclusively from the police officers themselves. On the contrary, the police are often implicitly expected to evade written rules in order to establish the order and keep the peace or, as Hughes explains: "The police, as the guardians of order, are sometimes required to be *dirty players*. They have to do what others do not. Enabled to break the law, and at the same time willing to justify such need, they can act violently and importunately."[16] It is certain that the police officers, because of the specific nature of work and role in society, act almost constantly under pressure from a number of subjects (citizens, media, politicians, police managers). Although they are often guided by completely different motives (increasing sense of security, the implementation of the current policy) it is certain that a unique request is hidden behind most of these pressures - increasing the efficiency and productivity of police work. This social environment is a resource of practical and moral dilemmas for the police officers and in its resolving they may even resort to illegal means. Specifically, acting under the pressure of creating results (order maintenance and reducing crime), the police officers may feel forced to expand powers outside the legal framework.

The police are certainly under considerable pressure to do something about crime. However, their ability to solve this problem is limited, which creates tension between desire and reality. Peter Manning described this dilemma as a conflict between the desired and possible, describing it as follows: "The police are faced with a paradox between what is formally expected of them and what is possible to perform. Trying to deal with this dilemma they try to withdraw from the collective definition of morality, law and social order."[17] The effect of this complex paradox may be best explained by the example of prevention of reselling drugs.

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11 Kutnjak-Ivković, S.: *Fallen Blue Knights: Controlling Police Corruption*, New York 2005, p. 70.

12 Bayley, D.: Law Enforcement and the Rule of Law: Is There a Tradeoff?, *Criminology & Public Policy*, Vol. 2. Issue 1 (2002), p. 134.

13 Зекавица, Р.: Примена права и ефикасност полиције – у: *Сузбијање криминала и европске интеграције* (научни скуп са међународним учешћем), Тара 22-24.06.2010, стр. 475.

14 Bayley, D.: *Democratizing the Police Abroad: What to Do and How to Do It, Issues in International Crime*, U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, Washington 2001, p. 135.

15 See: Goldschmidt, J.: The necessity for dishonesty: Police Deviance, 'making the case' and public good, *Policing and Society*, Vol. 18 No. 2 (2008), pp.113-135;

16 Manning, P.: Occupational culture - in: *Encyclopedia of Police Science*, (Greene J.R. ed.), New York 2007, p. 866.

17 Crank, J.: *Understanding Police Culture* – second edition, Cincinnati 2004, p. 297.

The police are almost daily bombarded by the messages like "clean our city" or "make the streets safe for our children," and thereby the police officers' noble sentiments and beliefs that they must act strongly against all drug-related activities are strengthened. The police, however, are not able to solve this problem alone, but what they can do frequently places them in the position to directly break the law and violate the rights and freedoms of the perpetrators of an offense. Every time the police carry out such actions they in fact fulfill, "in their own way", wishes and desires of the public to resolve the problem of illegal drugs. When the citizens complain publicly they implicitly ask from the police to violate regulations and perform abuses, without being aware that their complaints have real effects on the police behavior. It is important to emphasize, however, that the citizens are not the only one who put pressure on the police to do something about these crimes, but that pressures come from the police organization itself.[18] However, it is very likely that the citizens' pressures are more visible, especially when they are sent through the media.

This specific mechanism of police work formation gives us the ability to comprehend how the contradictory demands for efficiency and legality of police work lead to a specific conflict in police work - a conflict between law and the expectations of a society. This conflict suggests that police acts can meet the expectations of the part of a society, but at the same time not to be in accordance with the formal service rules. It usually arises when the police officers become friends with the residents of an area: they become familiar with the community problems and begin to implement the *norm of a neighborhood*[19] rather than to apply the law. For example, working in the community in which the problem with illegal drugs is predominant, encouraged by the support of the majority of the population in the area, the police can apply more aggressive tactics towards persons suspected of pushing drugs. Although such behavior represents an abuse of power granted to them by the law, for which the police officers can be punished, the neighborhood residents can protest vigorously against such a decision.

Another important indicator of contradiction between legality and efficiency derives from the common practice of measuring the performance of some officers by their immediate superior, which is actually based on the *numbers game* which makes the work of some officers "invisible". Trying to describe this particular phenomenon Skolnick and Fyfe quote a member of the NYPD: "You know how they think in the police headquarters. In the area of this guy nothing ever happens. We sent him there, and he does not show us anything. He never makes any arrests, ne does not write sentences. Why do we pay him? Let's move him out of there and put him where he is needed. He should help the guy in the next area, because there is a lot of crime. Isn't it funny how two streets so close to each other can be so different? However, if these chiefs look closely, they would see that the streets are the same, but the police officers are different. The chiefs can tell you what number looks good in the report, but they will not know to recognize the good cop in the field."[20]

In the described example it is explicitly pointed out that the police chiefs, appreciating the effect of an individual officer, value most the results achieved using repressive methods, which are usually easier to quantify, in contrast to preventive action the results of which are not so visible or are not manifested so quickly. Guided by this logic, we could conclude that for a police chief a police officer who filed numerous criminal charges and collected a large number of on-the-stop fines is more efficient than a police officer who prevents commitment of a crime, or deescalates potentially violent encounters. Although the latter may actually be more respected in the community in which he works his success among the chiefs remains undetected because "he does not make the numbers". Faced with this practice the police officers can easily choose repressive approach to work, aware that it will bring to them more prestige and recognition among the chiefs than preventive activity, even in these efforts they sometimes will rely on unlawful behavior and dirty work methods.

The lesson we can learn at the end is that police officers sometimes exceed or abuse their authority because they seek to achieve on efficient and effective way goals that are set to them by professional imperatives. In this sense, the attitude of some police officers that violation of regulations is necessary in police work should be understood as a result of productivity pressure that sometimes requests from the police to violate the rules.

18 See: Кесић, З.: Узроци и последице полицијског синдрома 'Прљавог Харија"' –у: *Супростављање савременом организованом криминалу и тероризму – књига II* (Мијалковић С., ed.), Криминалистичко-полицијска академија, Београд 2011, стр. 187-204.

19 Roberg, R., Crank, J. and Kuykendall, J.: *Policija i društvo* (orig.: Police and Society – second edition, New York, 2000, prevod: Dalibegović M.), Sarajevo 2004, str. 382.

20 Skolnick, J. and Fyfe, J.: *Above the law*, New York 1993, p. 128.

Law / Policy

Another major dilemma the police officers face with is embodied in the question of whether to apply the law in the work consistently, unconditionally and equal to all or the treatment should be adapted to the specifics of particular situation and its actors. This dilemma can be related to the polemics about the police work - work in accordance with the law or ruling policy. As pointed out by Roberg, Crank and Kuykendall: "While the work in accordance with the law is based on the fact that justice is created by consistent law application, where the police work is concentrated on obediently compliance with rules, the work in accordance with the ruling policy is based on individualization and responding to specific needs, as opposed to the strict application of the law, which does not take into account the peculiarities of problem and needs of individuals and certain groups in society."[21]

It is indisputable that the police officers should base their work on the law, but in spite of that, the fact is that formal guidelines can not be adapted to the peculiarities of each particular situation and its participants. Hence the discretionary right in policing appears as a necessity, especially if we know that the police officers are increasingly required to adapt their treatment to needs of different social groups. Michael Rowe points out that today's society, with an extremely complex and heterogeneous structure, requires a new approach in the police work, so-called *policing diversity*, and through which the needs and demands of different social groups should be identified. As this author explains: "It is obvious that the delivery of identical police service, which is designed for the majority population with the assumption that it is applicable to all, is not sustainable, because the members of specific citizen groups (racial and ethnic minorities, foreigners, migrants and asylum seekers, disabled people and mental patients), because of their specificity, may need a different type of police treatment."[22]

This does not automatically mean that their needs should be extended to all aspects of services they may require from the police. There is however a number of situations in which the police officers must adapt their behavior to satisfy the most basic needs of these people, what they are unable to perform without having a certain freedom in making decisions. The absence of discretionary power would mean that police officers in every situation must follow the policies, guidelines and rules without exception, without taking into account personal assessment and without adaptation of treatment to characteristic of a particular problem and its actors.

Such *non-discretionary tactics*, however, are not uncommon in police work, and a classic example which stands out is the strategy of *zero tolerance*. It is actually the extreme application of legalistic approach in policing that promotes full and consistent application of the law. The police experiences, however, show that law enforcement without exception is unsustainable in solving fluid situations, which are the essence of police work, and which Skolnick and Fyfe explain as follows: "None of the strict directives can impose obligation to an police officer to make arrest every time when he is a witness of law violations, because if he do that consistently and without exception, he would exhaust both the resources of the police and the rest of criminal justice system. Also, none of the directives can give a police officer the right not to make an arrest, because the circumstances under which the arrest was an appropriate response, and under which it is not can not be precisely defined in advance."[23]

From our point of view, both of these extremes are controversial to a certain degree, because both of them provide the opportunity for excess and abuse of police powers. In fact, the major deficiency of both options in the police action is their inconsistent and selective application, which was even recorded in the police departments where the zero-tolerance strategy was openly advocated, what significantly deviated from the advocated ideals of obediently law enforcement. This leads to the conclusion that a debate on policing - in accordance with law or ruling policy – is in fact a common problem. This debate points to three possible models of policing: 1) *political model* - refers to preference to certain members of society, which creates problems of discrimination, 2) *legal model* - the relationship between the police and an environment must be also strictly bureaucratically regulated to prevent a negative impact of policy on the police, and 3) *community work model* - is based on the assumption that the police need to meet the needs of individuals and groups without discrimination.[24]

21 Roberg, R., Crank, J. and Kuykendall, J.: *op. cit.*, 25.
22 Rowe, M.: *Policing, Race and racism*, London 2004, p. 145.
23 Skolnick, J. and Fyfe, J.: *op. cit.*, 120.
24 Roberg, R., Crank, J. and Kuykendall, J.: *op. cit.*, 26.

When we talk about the political model of relationship between the police and an environment we need to draw attention to the views of representatives of radical criminology, who warn about the issue of inconsistent law enforcement and the fact that the police primarily serve the interests of the most influential people in the society (holders of political and economic power). One of the representatives of this theory, an American criminologist William Chambliss, explains: "It is essential for the ruling class to control the discretionary right of the police in ways that provide immunity to it. For example, when there is a legal system overloaded with the procedural rules which application can afford only the wealthy and which, when applied, only guarantee immunity from criminal prosecution, and not to mention the more direct control by corruption and use of political influence."[25]

The legal model of relations between the police and the environment can be viewed primarily in the context of the policing professionalization. Liberation from external influences and the policing de-politicization stands out as the key aspirations of reform in the police administration. In spirit of this process, the policing is tried to be subsumed without exception under letter of the law which in practice usually results in the creation of bureaucratic police organization, with centralized control, rigidly prescribed rules and almost exclusive reliance on the police punishment for violation of the regulations. Working in an environment in which conformity is tried to be ensured by force the police officers can easily decide to do as little as possible to avoid a penalty. Many tasks, however, cannot be avoided simply because the police officers are obliged to do them, whether through work orders or respecting the moral obligation to protect the citizens' personal and property safety. Then informal values that are created within the police subculture (solidarity, closeness, etc.) take on the role of defense mechanisms, except that in this case they do not arise as need of police protection from external threats but from the ones coming inside, and above all from the managers as direct control subjects. In this context, the theory of the two cultures of policing – the culture of management cops and the culture of street cops - gets its footing and sense.[26]

Finally, the model of community work is a solution by which it is tried to reconcile the extremes of the political and legal model. This model is embodied in the well-known concept of *community policing*. Although the key topic and required size do not allow us to analyze in detail this model, its advantages and disadvantages, however, it seems reasonable to point to one of the controversial elements of this concept. Insisting on the so-called *service style*, this strategy of police action radically changes approach to policing. However, in practice this idea faces strong resistance, especially from the field performers who recognize it as a form of de-professionalization of the police. Just the thought of the police as a citizen service is opposed to their traditional view of the police as a key holder of crime fight. In this way the model of community work is related to another significant role conflict in the policing - crime fighter / social worker.

However, prior to its analysis we will point to another dimension of the conflict between law / policy, which is concretized in the conflict between the legal rules and internal policies of the police management. It is well known that the police administration works hard to create a positive image of the police in public. However, sometimes, for this purpose, the individuals or whole management decide to apply measures that indirectly encourage violation of regulations. This approach, looking at the individual-police officer level, was analyzed on the example of the contradiction between efficiency and legality, namely the conflict between legal norms and expectations of society. In the literature, however, it is suggested that some police organizations require from their members to sometimes consciously give up those interventions that would adversely affect their image in the public. So, here the conflict takes place on institutional, rather than individual level. In an effort to gain public confidence the police leadership may decide to implement a strategy of selective application of the law, i.e. *limited non-intervention.*

As Đorđe Ignjatović warns: "Although it seems attractive at first sight, the limited non-intervention strategy is in fact a dangerous double-edged sword, since it can cause more harm than good. For example, if the police less frequently confront with the drivers as a part of society in such a way as not to punish them for traffic offenses, other people may understand that as their inability to protect them from the terror of those same drivers."[27] It is especially problematic when this approach to work

25 Chambliss, W.: U susret političkoj ekonomiji kriminaliteta (orig. Toward a Political Economy of Crime, Theory and Society, 1975) - in: *Teorije u kriminologiji* (Ignjatović Đ., ed.), Beograd 2009, str. 357.
26 see Reuss-Ianni, E.: *Two Cultures of Policing – street cops and management cops*, New Brunswick 1983;
27 Ignjatović, Đ.: *Kriminologija*, Beograd 2010, p. 149.

includes actions of appreciable social danger, to which Zoran Stojanović rightly warns: "If we leave to the police in a particular case to determine whether to intervene in relation to the actions in which there is unambiguous risk, we give them powers with no basis in law."[28] Such act could be risky for the administration itself, because it can result in the creation of double standards and classification into those who support the implementation of informal politics and the others who support strict law enforcement. In addition to that, the existence of such practice causes adoption and use of inadequate criteria in making concrete decisions, which can be problematic.

The practice of firearms confiscation pursued by the members of Baltimore police department in an attempt to reduce violent crime, illustrates the danger that discretion may present when decision-making is based on inappropriate criteria. This practice, which was unofficially tolerated by the department leaders, encouraged the police officers to negotiate for the release of some persons arrested for crimes related to drugs or petty offenses if the prisoner could hand over a gun to the police officer. The department commander, asked about the practice by which the prisoners changed guns for their freedom, said that this programme's objectives were more valuable and useful than arrest of offenders.[29]

The fact is that police officers are often guided in the work by logic "the end justifies the means", especially if their conduct is aimed at realization of the *noble cause* namely utilitarian motivation. Highly developed *Dirty Harry syndrome* among the police members also testifies this. Removal of firearms from the streets in an attempt to reduce violent crime is certainly a worthy goal. However, implementation of these intentions in the way it was done in Baltimore is very problematic. The practice of this police department effectively violated the judicial system because the criminal charges were not filed against the perpetrators of crimes in cases in which they were able to buy their freedom by handing over a gun to the police. Particularly devastating fact lies in the essential inefficiency and illogicality of such a policy, which not only fails to solve the problem of violence on the street, but it allows bullies to return to it, and there is nothing that could prevent them to re-buy weapons at the "black market".

Crime fighter / Social worker

Discussing the characteristics of police profession, many authors emphasize the mission of combating crime as one of its key features. As Robert Reiner explains: "The myth of necessity of the police and their primary social role *to serve and protect* is the central line of police culture. For them, the policing is not just a job like any other, but a way of life that has purpose and meaning, and which is related to protection of the weak from bullies."[30] Defining their work as a primarily moral occupation, the police officers cherish specific sense of mission, which perceives the police as a crucial factor in the combat against evil in society, as a force that protects citizens from danger. Viewed in this context, the police work becomes more than a job - it actually becomes a social imperative.

Self perception of the police role as the most important social function within the police subculture cherishes a specific view of the world or how it is mentioned in the literature: "The police officers project their image in the public through the belief that the war for social justice and order is raging in the streets in which they are in the front lines, representing the *thin blue line* between anarchy and order."[31] Following this logic, the police officers link their profession exclusively with the process of combating crime, and see themselves as devoted fighters against crime. This perception, however, overlooks the reality of everyday police work, which is often boring and trivial. Citing the results of previous studies Paul Waddington emphasizes that the police not only have little impact on reducing the crime rate, but most of the time they do not spend on combating criminal activity, but on various forms of offering assistance and support to the citizens. The police officers, however, as this author says, decisively reject this work aspect, treating it as *rubbish* that distracts them from the *real work* and distorts their image of *crime fighter*.[32]

28 Stojanović, Z.: *Politika suzbijanja kriminaliteta*, Novi Sad 1991, p. 58.
29 Alpert, G. and Noble, J.: Lies, True Lies, and Conscious Deception: Police Officers and the Truth, *Police Quarterly* Vol. 12 No.2 (2009), p. 245.
30 Reiner, R.: *The Politics of the Police* – fourth edition, New York 2010, p. 119.
31 Kappeler, V., Sluder, R. and Alpert, G.: *Forces of deviance, Understanding the dark side of policing* - second edition, Illinois 1998, p. 97.
32 Waddington, P.: Police (canteen)sub-culture, *British Journal of Criminology* Vol. 39 No. 2 (1999), pp. 299.

The very fact that the police make tremendous efforts to promote the image of a fighter against crime should warn us about the importance of this ideological process. The nature of police profession is generally such that it allows *heroic self-perception*.[33] At the individual level, by this self-perception the police officers try to maintain a professional self-esteem and personal satisfaction. There is no doubt, as Reiner argues, that "most police officers see their fight against the bad guys as a ritual game, a fun challenge, in which an arrest is a victory that gives personal satisfaction".[34] Hence, most police officers rather see themselves in the role of an impeccable crime fighter, and not a social worker who solves minor problems. One might therefore conclude that this experience of their own role is more an expression of the police officers' secret desires, their *mental food*, which in the absence of real excitement strengthens the self-perception of a hero.

On the social level the image of a crime fighter serves primarily to legitimize the police role to the outside audience. Execution of coercive authority over citizens, as the essence of police work, is particularly challenging to the police legitimacy, since it needs to be explicitly and convincingly justified by using strong arguments. Certainly, one of the most convincing and the most commonly used justifications is protection of the honest citizens from the evil criminals. Fitted into this mythology the image of a crime fighter gives the police a heroic status, where the coercive authority is in the service of fulfilling the highest ideal – protecting security of ordinary people.

The question that logically arises here is whether the professional self-perception, embodied in the crime fighter exists only at a rhetorical level, or has an impact on concrete actions in the field. The results of recent research show that traditional values still continue to freely exercise significant influence on functioning of the police work in the field. Most of the classic characteristics of the police subculture remain practically intact by initiatives of the reform implementation. Even the strategic changes toward community policing did not violate the traditional conception of this subculture. Specifically, although community policing was the part of a new organizational ethos from which so much had been expected this work concept was in the most cases pushed into the background.

The fact is that new trends and reforms bring some refreshments in the police action. The process of selection and training of personnel, specialization and strategic planning of work were improved. Prevention programs and proactive approach to work are no longer exceptions. In such an environment more space is given to the social role of the police. Also, as the results of numerous studies reveal, the police spend most of their time on various forms of assistance and support to citizens at the local level. However, among many challenges and threats that police face, crime is still in the first place. Hence it is not surprising that most police officers still prefer to identify themselves with the impeccable crime fighter.

At the same time, many authors warn that the concept of community policing is really just a mask which still hides the traditional role of the police. As a result of tendency to describe this kind of police action the slogan *iron fist in a silk glove* was coined. Carl Klockars indicates how recently the strategy of community policing is used as a source of legitimacy of the police force, where the use of coercive means is tried to be justified by the need for solving the problems of citizens.[35] This argument only confirms that the commitment to the fighting crime mission, by relying on an aggressive policy, is still very strong within the police.

Such observations are also revealed by the results of extensive empirical researches, based on ethnographic studies of policing (a combination of observation and participation and testing of the police). In one such study, supervising the condition in several police departments of the British police, Bethan Loftus found that crime prevention was often considered to be the only „real police work". As this author emphasizes: "The commitment of police officers to crime prevention was expressed to the level that it disturbed other processes within the police organization. So, for example, the initiatives for community policing were disparaged, because they had failed to meet the value of the real police work."[36]

33 Holmes, M. and Smith, B.: *Race and Police Brutality: Roots and Urban Dilemma*, New York 2008, p. 46.
34 Reiner, R.: *op. cit.*, p. 121.
35 Crank J.: *op. cit*., 103.
36 Loftus, B.: *Police Culture in a changing World*, New York 2009, p. 189.

As a result of overlapping of effect of the desired perception of police profession, the actual situation in the field and the modern trends in the police activity the one of the most important police role conflicts - crime fighter / social worker conflict is created. The existence of this conflict clearly tells us how and in what manner to determine priorities in the police activity, but also tells us about the process of candidate selection and training program, and especially the way the police see their own role in society. As Roberg, Crank and Kuykendall explain: "The police officer who sees its role in the fight against crime considers that the criminal offense is a criminal's conscious choice and that the primary role of the police is to conduct investigations to prevent a crime, or to arrest its perpetrator. The officer who sees its role in the offering social services considers that the criminal offense occurs for many reasons, and that there are activities, such as teaching people about crime prevention and building of environment awareness, which can reduce crime rate."[37]

The antagonism between traditional and modern perceptions of the police, through which can be seen and some variation in a police officer's personality is undoubtedly behind this conflict. The variation which is of particular interest to us is the one to which Schonborn pointed distinguishing the following two types: 1) *an authoritarian police officer* - characterized by formalities, rigidity, tightness and propensity for violence, acts in accordance with the authoritarian role of the police, relying in the work to the coercive means, physical strength, shooting skill and traditional procedures, 2) *a humanitarian police officer* - the type of employee that is characterized by informality, flexibility and openness, in the work he relies on persuasion, normative power, social worker skill and innovative procedures.[38] It is obvious that the authoritarian type correspond to the model of a crime fighter, and whom Laurence Miller describes as an employee who has the emphasized repressive role in the law implementation, an individual who justifies the method of *hard-line* and especially its deterrent effect on criminals.[39]

This understanding of the police role further emphasizes the traditional values of police subculture within which, as we have seen, the commitment to mission of crime combating is especially cultivated. Moreover, the achievement of significant results in this field is a prerequisite for gaining honor and reputation in the police community and one of the key criteria of performance of an individual police officer but also of the police in general. However, accepting this role is also often encouraged by external demands, especially in the situation where the people or the politicians expect from the police officers to deal decisively with certain types of crime. This argument brings us back to the beginning of the story, to the conflict between efficiency and legitimacy of the police work, assuring us that contradictions and conflicts of the police role, no matter how specific, are actually intertwined in reality.

CONCLUSION

While the authors' primary desire was to demonstrate the universality of the problem characterized as "contradictory demands and role conflicts in police work," their perception is especially justified in the context of the police opposing organized crime and terrorism. In today's social environment, where the prevention of these forms of criminal activities is more often characterized as a war (*war on drugs*, *war on terrorism*) the existing contradictions and conflicts in the police work are especially highlighted:

- **Efficiency / Legality** - Defining the objective as a *war* that has to be won at all costs exerts additional pressure on the police officers because of which they more readily choose to be effective (to produce results) at the expense of compliance with legal procedures and maintenance of the citizens' fundamental rights and freedoms. In the concrete case, this choice can be a result of the pressure that justice should be meted out as soon as possible. This is especially evident in the case of combating terrorism, because it is crime that has a very scary and disturbing effect on the public;

37 Roberg, R., Crank, J. and Kuykendall, J.: *op cit*., 27.
38 Hodgson, J.: Police violence in Canada and the USA: analysis and management, *Policing: An International Journal of Police Strategies and Management* Vol. 24 No. 4 (2001), p. 536.
39 Miller, L.: *Good Cop – Bad Cop: Problem Officers, Law Enforcement Culture, and Strategies for Success*, Journal of Police and Criminal Psychology Vol. 19 No. 2 (2004), p. 32.

- **Law / Policy** - Declaration of war on crime has a significant impact on the resolution of the conflict between the police work in accordance with the law and the police work in accordance with the ruling policy. It is necessary here to point out an almost established practice of adaptation of the normative framework and internal policy of police activity in the newly created socio-political environment and policy of prevention of a particular type of crime. Thus, for example, after the terrorist attacks in London in 2005 a new set of rules, known as *Kratos* policy was hastily introduced in the work of British police and it brought about, among other things, the controversial policy of using deadly force - *shoot to kill*[40] - in the police practice;
- **Crime fighter / Social worker** – The fact is that most interest groups define priority mission of the police as combating crime, directing their aspirations mainly to clearly defined types of criminal behavior (street crime, violent crime, organized crime, terrorism). This approach to policing further strengthens self-perception of the police role as a fighter, reinforcing the authoritarian profile of a police officer's personality, while neglecting the communitarian role and social character of the police officer's personality;

The above described contradictions and conflicts undoubtedly take their toll, causing different consequences. These specific challenges, in addition to creating conditions and stimuli for violation of regulations, also have an impact on the personal and professional levels of an individual police officer, since they represent a significant source of professional stress. Specifically, these problems largely occur in the effort to prevent increasing crime, where the contradictions and conflicts arise between the maximum effort to increase effectiveness of the police work while guaranteeing the rights and freedoms of citizens in the implementation of these activities.[41]

Torn between the conflicting demands and conflicting roles the police officers are faced with a very frustrating situation, which is very stressful in itself, especially if its resolution is accompanied by public, political and organizational pressures. Then the police officers face serious challenges of solving the dilemma which has been put before them and make the right decision. But the question remains of what is the right solution to this situation and whether it still exists, namely if it is possible to reconcile the contradictions.

The fact is that there may be a discord between the police capability and society's expectations, primarily because the demands for more efficient and effective treatment in the fight against crime may be inconsistent with the principle of legality. Hence Vuković is right when he says that it is necessary to conduct research on public opinion and determine the extent to which citizens expect from the police to be involved in the "fulfillment of their specific requirements".[42] However, it is also important to determine both the willingness and the ability of the police to respond to these requests, while its members do not exceed the limits of the law. Whatever they decide or whatever they choose, the fact is that police officers cannot, in these particular circumstances, meet the expectations of all and that someone will still be dissatisfied. It is certain that their actions also cause negative reactions (reviews, complaints) that some police officers have to face, and some of them probably suffer some penalties. The police officers are often aware of this possibility which just enhances stress to which they are exposed during action.

In the end it is still important to point out the need to review the existing police regulations and the need for possible adoption of new regulations, which would allow police to act more effectively, particularly in combating terrorism and organized crime, as the most dangerous forms of threats to citizens' security of person and property. Such efforts, however, must be clearly guided by the principles of rule of the law, not by the imperative to win at all costs, because such logic certainly leads us to "a dead-end". One of the many comments of the controversial *Menezes*[43] case states: "If the war on terrorism has created an atmosphere in which the police can shoot seven bullets in the ordinary citizen, and that society shrugs its shoulders to this, then the terrorists have already taken a modest victory."[44]

40 See Punch, M.: *Shoot to Kill – Police accountability, firearms and fatal force*, London 2011.

41 Davidson, M. and Veno, A.: Policijski stres: Prikaz i kritički osvrt s višestranog kulturološkog, interdisciplinarnog stajališta, *Izbor* br. 1-2 (1979), str. 58.

42 Вуковић, С. *op. cit.*, 185.

43 Suspected of being a suicide bomber Jean Charles de Menezes, a 27-year old Brazilian immigrant, was killed on 22 July 2005 at the Stockwell station of the London Underground by members of the Metropolitan Police. This controversial case caused much polemics among the scientists and professionals, which are perhaps the best summarized by Maurice Punch in his scientific study on the use of deadly force and its fatal consequences (see Hames, 2006; Punch, 2011).

44 Hames, T.: Police Shoot-to-Kill Policies Invite Abuse of Force –in: *Police Brutality* (Sheila Fitzgerald, ed.), Greenhaven 2006, p. 108.

Although it is usually the hardest thing in life to find the golden mean, the fact is that the solution to these peculiar problems of policing should be sought in the balance between the two extremes. Whenever a police officer acts, he must establish a balance between the two primordial human needs - freedom and security. How to establish this balance, however, is a question that requires a broader debate, which is beyond the scope of our work. It is certain, however, that it forces us to think about the choice between two evils, and that before making a decision we should think carefully what we get and what we lose.

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POLICE DEPARTMENTS IN THE NEWLY LIBERATED REGIONS OF THE KINGDOM OF SERBIA 1912-1913

Assistant Professor **Ivana Krstić Mistridželović**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract*:* The process of organizing Serbian authorities in the territory of the so-called Old Serbia and Macedonia already began during the First Balkan War in 1912. The establishment of the first Serbian administrative bodies accompanied the liberations of these territories by the Serbian army. Since the war operations were still in progress, the organization of the civilian administration was assigned to the Police Departments within the Supreme Command Headquarters, headed by a police inspector. Measures taken towards organizing civilian administration in these territories were of a temporary character until the annexation of these territories to the Kingdom of Serbia, effected by the proclamation of King Peter on 25 August 1913, based on the relevant international agreements. Following this, steps were taken towards final arrangements regarding civil administration in these areas, which depended both on the administrative capacities of the Kingdom of Serbia and on political will of the Serbian government. The main goal of organizing and functioning of the civil administration in the first stage was to ensure personal security and security of property for the citizens, public order, and equality of all before the law regardless of their ethnic or religious affiliation. This is why these assignments were entrusted to police administrative bodies – temporary county and district prefects in the newly-established temporary counties and districts. The legal foundation for the organization of civil administration in these territories was the Regulation on the Administration of the Liberated Territories dating from 27 December 1912, which represented a unified regulation for the functioning of the principal administrative bodies and judicial civil authorities in the liberated territory. New territories were provisionally divided into 8 counties and 29 districts until mid-1913, and the prefects of these units were the representatives of the civil police administration. Their powers were not clearly separated from the powers of the military authorities due to the wartime conditions, which made the situation in the field, already rather complex, additionally complicated. Following the Treaty of Bucharest, the Supreme Command was demobilized, thus formally separating the civil and military authorities. The organization of civil administration remained under the exclusive jurisdiction of the government. Based on the Regulation on the Administration of the Liberated Territories of 31 August 1913, new administrative division of new territories was performed into 11 counties and 46 districts. What followed was a reorganization of police authorities, performed by the minister of the interior, and it involved reassigning formerly appointed county and district prefects and appointing some new ones. Since the relevant international agreements had finally defined the borders of the new territories of Serbia, the final division of new territories into 12 counties and 45 districts was effected in early December 1913, following which the police administration in these areas could be organized on a more lasting foundation. On 25th December 1913, the Government presented to the National Assembly a bill on annexing Old Serbia and its administration, which failed to be enacted due to the outbreak of the World War One.

Keywords: Serbia, Balkan Wars, newly-liberated territories, Old Serbia, Macedonia, administration, police.

INTRODUCTION

The region of the Balkan Peninsula was marked by a mixture of different nations and ethnic groups, resulting from the great migrations and permanent small-scale migrations, so that as early as the beginning of the 20th century Jovan Cvijić concluded that it was impossible to produce an accurate ethnographic map of this area. After the great tribal migrations, that drove the Slavs from their original dwellings, the most decisive influence on such a picture of the Balkan Peninsula was effected by Turkish conquests, especially the intensive ones taking place until mid-15th century. This was the period when, one after another, the mediaeval states of the Serbian people lost their independence and significant ethnographic changes took place in the Balkan Peninsula. However, along with the official names of the Ottoman administrative units in this region (*vilayet, sandžak, kaza*, and *nahija*), the conquered nations cherished the old names of the regions, although their contents changed with time.

Foreign authors (historians, cartographers, travel writers) referred to the Balkan Peninsula under the Turkish administration simply as the "European Turkey". The problem occurred with the gradual liberation of some Balkan nations from the Turkish rule and creating new partly dependant states and some independent states. When the national revolution 1804-1815 created a new core of the Serbian state, initially shaped into an autonomous (1830) and then independent Principality of Serbia (1878), the century-old notion of Serbia, present in all maps until then, started gradually being reduced to the territory of the new Principality. When Austria-Hungary was granted the right to occupy Bosnia and Herzegovina at the Congress of Berlin (1878), the main foreign policy action of the Principality of Serbia was directed towards the south. It turned out, however, that there was only a vague idea in Serbia about the Serbian nation in the south and even a rather great confusion of political concepts, combined with geographic and ethnographic misconceptions.

The Serbian people in the south lived in three of the then Turkish vilayets: the vilayets of Kosovo, Bitola (Monastery) and Thessaloniki. The international public most frequently referred to these regions as Rascia, using an old regional name of a part of the mediaeval Serbia, and Macedonia, with changed contents of the notion (including the areas of Kumanovo, Skopje, Kratovo, and Tetovo with the surrounding areas). Since the middle of the 19th century, the name of Old Serbia was increasingly used in Serbia, not only in the geographic maps and individual writings, but also in the acts of state administration of the Principality of Serbia, primarily of the church (the metropolitan episcope of Belgrade) and the Ministry of Education. Due to the insufficiently defined notions, Serbia took measures during 1878 to produce and exhaustive elaborate on the territory of Old Serbia. This assignment was entrusted to Đorđe Popović – Daničar, whose study entitled Old Serbia defined the territory of this region in the following way: "in the north it borders with the Principality of Serbia until it reaches the mountains of Stari Vlah, stretching between (the towns of) Nova Varoš and Sjenica to the west of the Lim River. In the east, Old Serbia borders Bulgaria and further to the south the Struma River, and in the west it certainly encompasses – with no definite border with Albania – the counties of Dukadjin with Pulati and Dubra. In the south, Old Serbia stretched to Lake Ohrid and the Bistrica River (Inde Karasu)." [1] Stojan Novaković and Vladimir Karić demanded that the borders of the southernmost Serbian lands be accurately established and in the map of the Kingdom of Serbia made by Karić in 1888, Old Serbia is clearly outlined in the territory from Pljevlja and Tara to below Skopje, that is, within the borders of the then vilayet of Kosovo. [2] Finally, Jovan Cvijić believed that "bearing in mind historic traditions as well as ethnographic and linguistic characteristics of the population", in addition to Raška and Kosovo and Metohija, the territories of Old Serbia should include the areas of Skopje, Kratovo and Tetovo.

Old Serbia consisted of the three mentioned main parts (Raška, Kosovo and Metohija, and the regions of Skopje and Tetovo) and it was finally liberated from the Turkish rule as a result of operations of the Serbian army during the First Balkan War in 1912. However, the so-called "Balkan question" could not be solved without the participation of the major powers whose interests were above the formally often proclaimed principle that "the Balkans should belong to the Balkan nations." At the Conference of the Ambassadors held in London in 1912, the outcome of the First Balkan War was reduced to the detriment of Serbia (the loss of right to the Adriatic coast, the recognition of the newly-established autonomous Albania) and as early as the very following year Bulgaria started a war against its recent allies because of its pretensions toward Macedonia and Greece. The Second Balkan War ended by the peace Treaty of Bucharest in 1913, which finally created a legal foundation for annexing the already liberated territories to the Kingdom of Serbia.

PROVISIONAL POLICE ADMINISTRATION IN THE LIBERATED TERRITORY

Simultaneously with the advances of the Serbian army in the First Balkan War, the process of establishing Serbian civil authorities in the liberated territories took place. The first districts and counties were established immediately following the arrival of the Serbian army and ending of the military operations, and they were called "temporary military counties and districts" which were headed by temporary county and district prefects. The first district to be founded in the newly liberated terri-

1 [Ђорђе Поповић – Даничар: *Стара Србија*, Београд, 1878, 3.]. This definition coresponded to a certain extent with the one provided by Jovan Ristic.

2 *Србија и суседне земље на старим географским картама*, САНУ, Београд, 1991, 165.

tories was the one in the liberated town of Podujevo on October 20, 1912, under the name of Labski district. The units of the Third Army which fought in Kosovo had liberated Podujevo on 7 October, and soon afterwards established the above mentioned district.[3] From the arrival of the Serbian army in Priština on 9 October, there were more intensive activities related to the introduction of the administration. The Supreme Command issued an order that the list of villages be prepared as soon as possible, containing the name of the village, the number of houses, both Serbian and Albanian.[4] The County of Priština was established with the centre in Priština and it comprised the districts of Priština, Vučitrn, Mitrovica, Gnjilane, Ferizović (on 22 October Ferizović was renamed Uroševac), and Lab. The districts consisted of municipalities, which included a certain number of villages. Todor Stanković from Niš was appointed the first county prefect of the liberated Priština. The county of Prizren was then established with Todor Stanković being reassigned to the post of the county prefect, whereas Captain Ljuba Vulovic was appointed the governor of the town of Prizren, with reserve Captain Voja Kovačević being appointed a district prefect in Đakovica.[5] Since the Serbian army had continued its advance towards the Adriatic Sea, a new military region was established under the name of "Coastline region" which included the region from Prizren and further on towards the Adriatic Sea.[6] With the advances of the Serbian army towards the Aegean Sea, the county of Skopje was formed in the liberated territory, comprising the districts of Tetovo, Gostivar, Veles, and Skopje.[7] The administration was organized immediately in the city of Skopje by filling in the ranks of municipal authorities and retaining the members of the municipal board from the period of Turkish rule which was headed by Spira Hadži-Ristić. Following the victory in the famous battle of Kumanovo, the county of Kumanovo was established. The Serbian army was advancing in the direction of Montenegro and it liberated the *sandzak* of Novi Pazar, in the territory of which the county of Novi Pazar was founded.

Following the liberation of Skopje on 13 October 1912, the city hosted the Supreme Command Headquarters. The Commander of the Supreme Command Headquarters, General Radomir Putnik, ordered the formation of the Police Department within the Headquarters, with Milorad Vujičić, a superintendent in the Ministry of the Interior, as the chief inspector. As the war continued, the organization of the Serbian administration in the liberated territories was the responsibility of the Supreme Command Headquarters and its task of priority was to organize military authorities, but initially, it also had control over the organization of civilian authorities. Following the liberation of all major places in Old Serbia and Macedonia, the Supreme Command appointed the commanders of the places, especially from among the higher-ranking officers, who were in charge of all military and police work. They were to take over responsibility for the postal services, telegraph, and other institutions in their places of appointment and to engage Serbian officials by adding one or more employees in places where the municipal administration already existed or by organizing such administration by choosing from the ranks of the citizens of the Kingdom of Serbia and eligible citizens of the new areas. The jurisdiction of the Supreme Command encompassed the issues related to the judiciary, school, church, and all other institutions in these areas.[8] The task of the Police Department in terms of administrative duties was to organize the establishing of municipalities, districts, and counties similar to the ones in Serbia and to appoint chairs of municipality, headmen in the villages and the adequate numbers of municipal board members. The Department was also in charge of appointing police officials, who were to maintain order and security in their territories together with the commanders of the places. The officials were appointed to their posts by a decree of the commander-in-chief of the armed forces, King Petar, at the suggestion of the Police Department of the Supreme Command Headquarters, as military conscripts for the duration of the state of war and in keeping with section 6 of the 1901 Act on the Organization of the Army.[9] The decrees on their appointment were not,

3 *Српске новине*, No. 228 of 9 October 1912.
4 *Српске новине*, No. 235 of 17 October 1912.
5 *Српске новине*, No. 246 of 31 Ocotober 1912.
6 *Српске новине*, No. 249 of 3 November 1912. This territory was populated by the Albanian tribes of Dukadjin, Mirdita, Fonda, Mane, and Zadrimlje, who voluntarily surrendered to the Serbian army.
7 *Српске новине*, No. 257 of 13 November 1912.
8 Јанковић, Д.: *L 'annexion de la Macédonie à la Serbie*, Скопље, 1970, 284.
9 Article 6 Law on the Organization of the Army reads as follows: "The king is the supreme commander of all ground forces, and, at the proposal of the Defense Minister, he issues the decree stipulating the formation of all major units and departments, their division into subordinate units, internal structure, composition and strength in numbers, as well as the attribution of special weapons and skills; he prescribed the organization of staffs, the scope of the special organs, all troops and their weapons, clothing, accessories, command relationships, and official relations, as well as all the regulations and rules for their special service, training and discipline, and the use of the military in war and peace. The same applies to the organization of prefectures, institutes, institutions, schools, scientific,

certainly, published in the official gazette *Srpske novine*, given the state of war, and neither was the administrative division of the liberated territories. Since they were appointed by the Supreme Command on the basis of the above mentioned military statute, the prefects of counties and districts did not have to possess qualifications prescribed by the Serbian Act on Administration of Counties and Districts of 1905.

The first county prefects to be appointed in the newly liberated territories by the Supreme Command's decision were: Mihailo Cerović, previously the prefect of the County of Belgrade, who was appointed the prefect of the county of Skopje; Mihailo Zotović, previously the prefect of the County of Užice, was appointed the prefect of the County of Novi Pazar; Todor Stanković, the deputy, became the prefect of the County of Priština; and Ranko Trifunović, member of the City of Belgrade Administrative Board was appointed the prefect of the County of Kumanovo.[10]

The original administrative division, which was later to be modified on a number of occasions, divided the newly liberated territories into eight administrative counties and 28 districts. The County of Novi Pazar, based in the town of the town of Novi Pazar, consisted of the following districts: Novopazarski (based in the town of Novi Pazar), Sjenički (based in the town of Sjenica), and Mitrovački (based in the town of Mitrovica); the County of Priština, based in the town of the town of Priština, included the following districts: Prištinski (based in the town of Priština), Vučitrnski (based in the town of Vučitrn), Giljanski (based in the town of Giljane), Labski (based in the town of Podujevo), and Ferizovićski (based in the town of Ferizović); the County of Kumanovo based in the town of the town of Kumanovo comprised the following districts: Kumanovski (based in the town of Kumanovo), Preševski (based in the town of Preševo), Kratovski (based in the town of Kratovo), and Krivopalanački (based in the town of Kriva Palanka); The County of Skopje, based in the town of Skopje, included the districts: Skopljanski (based in the town of Skopje), Veleški (based in the town of Veles), and Kačanički (based in the town of Kačanik); The County of Tetovo, based in the town of the town of Tetovo encompassed the following districts: Brodski (based in the town of Brod), Gostivarski (based in the town of Gostivar), Gornjopološki (based in the town of Kičevo), and Donjopološki (based in the town of Tetovo); The County of Prizren, based in the town of the town of Prizren consisted of the following districts: Šarplaninski (based in the town of Prizren), Đakovički (based in the town of Đakovica), and Pećki (based in the town of Peć); the County of Debar, based in Debar, included the districts of: Debarski (based in the town of Debar) and Radomirski (based in the town of Radomir); and, finally, there was the County of Pomorje, based in Drač, which included the districts of: Drački (based in the town of Drač), Tiranski (based in the town of Tirana), Elbasanski (based in the town of Elbasan), and Lješki (based in the town of Lješ).

The instructions for the work of the county and district prefects issued by Vujičić emphasised that their main duty should be to cooperate with the commanders of their respective places in safeguarding personal security of citizens and their property, to ensure the equality of all citizens regardless of their religious of ethnic affiliation, as well as to safeguard the property of the Turkish state and other legal persons. In the execution of their duties, they were to act in keeping with the Serbian laws. More serious offences, that is, the offences that were punishable by imprisonment of more than a month, the revocation of the title, or a fine exceeding three hundred dinars, as well as the most serious crimes, punishable in law by capital punishment or long terms of imprisonment, were tried by the military courts. In order to perform the tasks entrusted to them successfully, and to organize the counties and districts, the county and district prefects first of all had to group the villages into municipalities, and then municipalities into districts. According to the instructions given by Vujičić, in doing so, they were to be guided by the pre-war conditions, i.e. they were to take into consideration the Turkish administrative division and the needs of the local population. District prefects appointed municipality chairs and headmen in the villages, as well as the required number of municipality board members.

technical, medical and administrative institutions, permanent or temporary, etc., such as may be necessary. *Српске новине*, No. 25 of 14 February 1901.

10 *Полицијски гласник*, No. 41 of 28 October 1912. The article titled "Organizing the authorities in the newly liberated territories" states that those first police officers in the new areas will not have an easy task, as they will have to organize the county and municipal governments in the new districts, to restore order and security in the areas which had for more than five centuries been ruled by anarchy and in which authorities existed only in name. Their mission, concludes the editorial, is to "as it were, out of nothing, create the foundation stone for a completely legal administration of New Serbia," but "we are confident that their eligibility and their patriotism will overcome all."

Vujičić was aware that the simultaneous existence of civil and military officials was not opportune, because the already complex problems in the new territories were thus additionally burdened by the conflict between the military and civil authorities which had been smouldering in the Kingdom of Serbia since the so-called May Revolution of 1903. It was for this reason that he suggested, in early November 1912, that the issue of administrative arrangements in the new territories be resolved by adopting a regulation similar to the Provisional Law on Administrative Rule of Liberated Areas of 15 January 1878. He addressed the prefects of the counties (of Novi Pazar, Priština, Kumanovo, Skopje, and Prizren), the Minister of the Interior, Stojan Protic, and the Chief of Staff of the Supreme Command, General Radomir Putnik.[11] However, before his suggestion was taken into consideration, the commander of the Third Army, General Božidar Janković had issued the *Provisional Police Directive on Municipality Courts on the Battle Area of the Third Army*. The directive was issued in Prizren on 16 November 1912.[12] The power of authority to issue the directive was given by the Commander-in-Chief and its effects were limited both in terms of time ("until such a time as the government of the Kingdom of Serbia replaces it by a permanent law") and space (it applied only to the territory of the military activities of the Third Army). The directive had 62 articles and essentially consisted of two parts. The first part envisaged the formation of municipal courts as administrative, self-rule, and judicial authorities with duties prescribed by the Serbian Act on Municipalities dating from 1903, but with a number of departures from this act. Namely, it excluded the principle of electing municipal officials (the chair of the municipality, village headmen, and board members), who were appointed and released by the police authorities in the new territories. Furthermore, it was prescribed that the presidents/presiding judges of the municipal courts and municipal clerks in the cities had to be of Serbian nationality and the inclusion of different nationalities and confessions in the municipal courts depended on the assessment of the political authorities in charge. The implementation of this directive was practically suspended by the Order of the Supreme Command Headquarters dated 19 November 1912, which emphasized the full equality of all citizens and provided that "in places where there are Muslims and where they have proved their loyalty it should not be avoided to appoint them as municipality officials, in proportion to their number".[13] The other part of the Directive listed the infraction of the law and punishments for their perpetrators within the scope of jurisdiction and powers of the municipal courts to decide in criminal matters. It was in fact the third part of the Serbian Penal Code, modified to a certain extent (envisaging the liability of persons towards military authorities) and shortened (e.g. articles 348 and 349 of the Code were omitted) in accordance with the war-time circumstances and local requirements.[14]

Inspector Vujičić was dissatisfied by the contents of the Directive and the fact that its territorially limited validity could produce confusion among the civil and military authorities in the new regions. Finally, in the situation where the civil and military authorities competed for supremacy over each other, it was not to be neglected that the directive was passed apart from the civil administration. On the other hand, he was not pleased with the draft Regulation on the Administrative Arrangement of Liberated Territories, which was actually a slightly modified text of the Provisional Law on the Administrative Rule in the Liberated Territories from 1878, made up by the prefect of the district of Priština, Dimitrije Kalajdžić. That is why Vujičić produced his own draft of the Regulation on the Administrative Arrangement of Liberated Territories and presented it to the minister of the interior on 25 November 1912.[15]

It is not known whether Minister Protić ever took into consideration the concept of the regulation presented by Vujičić, but he made attempts to abolish Janković's Directive. Since he had failed in doing so, Minister Protić found a way in which to – at least partly – mitigate the effects of its implementation. On 8 December 1912 the government adopted his suggestion that the military officials could not be appointed prefects of counties and districts, and that civil officials could not be appointed without the consent of the minister of the interior.[16] In this way the administrative

11 Архив Србије (=АС), Министарство унутрашњих дела (=МУД) – Полицајно одељење (=П), 1912, Ф 44 Р 95.
12 *Привремена полицијска уредба и уредба о општинским судовима на војишту Треће армије*, Призрен, 1912.
13 Quoted from: Јагодић, М.: *Уређење ослобођених области Србије 1912-1914: правни оквир*, Београд, 2010, 14-15.
14 Живановић, Т.: *Кривични (казнени) законик и Законик о судском поступку у кривичним делима Краљевине Србије с кратким објашњењима (с обзиром на одлуке Касационог суда)*, Београд, 1925, 212-213.
15 АС, МУД - Поверљиво, кутија 1911-1912, Инспектор полиције М. Вујичић министру унутрашњих дела С. Протићу, 25.11.1912. и прилог уз акт, Вујичићев концепт уредбе.
16 АС, МУД - Поверљиво, кутија 1911-1912, Министар унутрашњих дела С. Протић инспкектору полиције М. Вујичићу, пов. No. 369, 8.12.1912. Initially, the king's signature was required by the Chief of the Supreme Command to appoint district prefects, but due to some objective (the war) and subjective reasons (more lenient control of selected

arrangements in the new territories became fully dependant on the administrative capacities of the Kingdom of Serbia, especially if one bears in mind the efforts of all decisive factors in the country to send the best officials to the new territories. Since a large number of active police officials – in agreement with the Supreme Command – had been appointed as temporary police officials in the new territories, it was necessary to appoint other officials to fill in their former posts. Filling the vacancies in the police jurisdictions within the country called for funding, that is, it exceeded the envisaged budget fraction, so that Minister Protić addressed the chief control, which presented its opinion to the Council of Ministers, which in turn ruled as follows: the vacancies should be filled by the officials already on the budget of the Ministry of the Interior, after previously releasing from duty the officers appointed to new territories, whose incomes were provided for by the Ministry of the Military. However, the question of organizing the municipalities and the municipal authorities in the new territories was to remain topical for a long time. Due to the shortage of qualified personnel, municipal clerks were chosen from among the ranks of military conscripts, but they had to return to their military duties after some time, despite their engagement in the municipalities, thereby leaving the posts in the municipal administration vacant once again. This was why the Assistant Chief of Staff of the Supreme Command General Živojin Mišić addressed the minister of the military, asking him to except the municipal clerks from the conscription unless they were the reserve officers or reserve sergeants. Mišić estimated that if this was not done, many municipalities could have stopped functioning, and his estimate induced the minister of the military to grant this request.[17]

A number of reports focusing on the organization of authorities in the liberated territories were preserved in the archives. One of the first reports to the minister of the interior sent from Bitola mentioned that the majority of the town's population (totalling at about 70,000 inhabitants) were Aromanians (*Cincari*), Bulgarians, and Greeks, whereas Serbs constituted a minority. The report suggested dividing the town into seven precincts, a division in keeping with the former one that existed under the Turkish rule, and demanded the establishment of district authorities in Resen because the district of Bitola was too large to be administered from one centre. The most serious dispute concerned Florina. The Supreme Command Headquarters ordered the prefect of the county of Bitola to go to Florina and set about organizing the municipal authorities, which he did. However, Greek General Mavrudosa (who had declared himself the governor of South Albania), declined to sign the protocol and announced that he would not allow the administration to be constituted. Following this – acting on the orders of the Supreme Command Headquarters – the prefect of the County of Bitola established the office of the district of Florina in Bitola, and the task of the district prefect was to exert his power towards Florina as far as possible.[18] The prefect of the district of Prizren, Sreten Kojić, suggested the introduction of changes in the administrative government of this county, which was twice the size of any two other counties within the former borders. He was of an opinion that it would be best to divide the county of Prizren in two counties and, if this was not possible because of the undefined borders with Montenegro and Albania, that districts should be organized differently. The district of Šarplaninski, which was too big, with its 36 municipalities and 156 villages, should be divided into the district of Šarplaninski, based in the town of Prizren, and the district of Podgorski, based in the town of Suva Reka. Further, the district of Podrimski should be organized in Orahovac (located at an important spot between Ferizović and Prizren, and a large settlement where Turkish rule had existed and where a temporary military district prefect was appointed), which should comprise a part of the district Šarplaninski, some of the district of Đakovica, and the largest portion of the district of Metohija. The district of Đakovica should remain in place with the addition of some villages from Has, Krasnićski barjak, and some villages of the district of Metohija. The district of Metohija, although consisting of 164 villages (virtually a county in its own right) would remain, but some of its villages should be reassigned to the districts of Podrimski,

persons) it was ommitted, and the Supreme Command began appointing them independently. This, essentially, was the reason of Protić's disapproval and his motion to reach the decision that civil servants could not be appointed without his permission. Protić was also concerned about the reputation of his Radical party, as the choice of the persons selected for the new administration in the region would be associated with his party and not the Supreme Command. He therefore instructed Vujicic that the appointed officials should have "clean hands", since any suspicious nomination would undermine the position of radicals in the Assembly, but also the party's relationship with the Black Hand of Apis.

17 AC, Министарство Војно, 1912-1914, ФЂОН 4738 P 1 1914.

18 AC, МУД, П, ПФ 22 P 1/1913. The district of Florina established in this way remained in place for a long time, and Florina itself was the only municipality between Serbia and Greece under dispute. Following the signing of the Treaty of Bucharest in 1913, it was given to Greece.

Đakovički, and Podgorski. The district of Gorski, based in the town of Vranište, should also remain in place, but a number of its villages which constituted the provisional district of Ljum should be taken away and thus form the permanent district of Ljum, based in the town of Bican. This would reduce the district of Drimski, based in the town of Sveti Spas, which should spread towards Albania and include Malicija, Krasnić, and other places around Sveti Spas up and down the Drim River towards the Albanian border, Skadar and Lješ, as well as stretch towards Debar on the one side and Montenegro on the other.[19] The report from the district of Novi Pazar to the Supreme Command stated that reorganization of municipal authorities had been performed in the entire district and that the security of persons and property was good, bearing in mind the exceptional circumstances in the country. It claimed that the main impediments in this territory were the lack of literate municipal officials and good municipal clerks, widely dispersed villages, and shortage of buildings convenient for municipal courthouses and jail houses where convicts and suspects could be kept under police surveillance. The report also said that the county was large and unpopulated, adding that the towns of Novi Pazar, Mitrovica and Sjenica unclean and unarranged, the level of education was low and public health neglected; the majority of population, indolent and lazy, lived in poor conditions; they lived primitive lives following the "hand to mouth" principle.[20]

The most comprehensive report, by all standards, was the one made by Inspector Vujičić and sent from Skopje to the Minister of the Interior Protić in mid-December 1912. The report stated that the organization of counties, districts, and municipalities was completed, as well as the introduction of county, district, and municipal authorities in Old Serbia and Macedonia. The Serbian civil administration was not introduced only in the envisaged county of Pomorje (Drač, Elbasan, Tirana, and Lješ) which remained under the rule of the military commanders of the mentioned places.[21] The civil administration was not introduced in the envisaged Matski district in the county of Debar because that area of the old *sandzak* of Debar was not completely taken by the Serbian army. In his report, Vujičić emphasized that upon negotiation it should be demanded that the existing borders towards Bulgaria and Greece remain in place and that, as regards the border with Albania, it was necessary to secure as much hinterland as possible for the western coast of Lake Ohrid, which is why it should be insisted on keeping the upper river-basin of the Škumba River (at least to the point of confluence of the Rapon river) within Serbia, and if this should fail, that the border should be the watershed of one of the tributaries of the Škumba River. In any event, it was necessary that the existing border with Albania should be pushed back as far as possible from Debar, Prizren and Đakovica, because otherwise the survival of these towns would be in question. It would be useful, said Vujičić, to connect Bitola, Ohrid, and Struga by railroad. Bearing in mind the provisional character of the territorial and administrative organization, no serious steps could be taken towards building office buildings for county and district administrations and prisons. The authorities of counties and districts were, in his opinion, discharging their duties well and with diligence; security of persons and property was good ("as many as 10 or even 15 days pass without a single criminal offence") and the order in towns and villages was entirely undisturbed. There was a certain number of Albanians – in the counties of Priština, Prizren and some of Novi Pazar and Skopje – who were hiding in the mountains (they had run away from homes either because they had done something wrong and feared revenge or simply out of fear for their lives), but measures had been taken for them to be captured and surrendered to the authorities. The municipalities and municipal authorities were formed like the ones in Serbia, and their functioning was satisfactory. The census of the population was performed from door to door, so it could be regarded as rather accurate, although it noted that not much attention was given to the statements regarding nationality because "all those who called themselves Bulgarians now declare themselves as Serbs", so that only those who were under the strong Bulgarian influence, due to the proximity of the Bulgarian border, were listed as Bulgarians.[22]

19 AC, МУД, П, ПФ 22 Р 1/1913. These suggestions were adopted on the occasion of a later territorial and administrative division of the new territories.

20 AC, МУД, П, ПФ 22 Р 1/1913.

21 After the conquest of Drač on 29 November 1912, the formation of the district of Drač was planned and it was to include the following srezovi: Drač, Lješ, Elbasan, and Tirana. AS, MUD, P, PF 22 R 1/1913. Originally, Ivan Ivanić was appointed the governor of Lješ, but when he was appointed the governor of Drač, the position of the governor of Lješ was taken by the grammar school headmaster Dragomir Obradović, member of the Headquaters of the Division of Šumadija. The civilian governor of Lješ was the superintendant Sima Avramović. Томић, Ј.: *Рат у Албанији и око Скадра 1912. и 1913. године*, Нови Сад, 1913, 128.

22 AC, МУД, П, ПФ 22 Р 1/1913.

In a decree of 27 December 1912, King Petar issued the *Regulation on Administrative Arrangement of the Liberated Territories* which was very similar in structure and contents with the Provisional Law on Administrative Arrangement of the Liberated Territories of 1878.[23] The preamble of the Regulation pointed out the historic rights of Serbia to the liberated territories and stated that the document was motivated by the belief that the population in these territories should "immediately feel the benefits of law and order, freedom and justice." Chapter one of the Regulation contained the provisions regarding municipalities; Chapter two provided for the functioning of districts; Chapter three contained the provisions on districts and organization of courts; whereas Chapter four contained "general orders". This Regulation was "the first general legal act which initiated the integration of the newly-liberated territories into the legal system of the Kingdom of Serbia", and although many of its provisions have long since been superseded by contemporary Serbian legislation, it was "sufficient to ensure prerequisites for the functioning of the main bodies of civil administration in the new territories for the duration of the time of war." [24]

ADMINISTRATION IN THE NEWLY-LIBERATED TERRITORIES FOLLOWING THEIR FINAL ANNEXATION TO THE KINGDOM OF SERBIA

The temporary territorial and administrative organization existed until the end of the Second Balkan War and the signing of the Treaty of Bucharest on 10 August 1913. Immediately after this, steps were taken towards shaping a more lasting territorial and administrative division, which would, with small modifications of borders with Montenegro, Albania, and Greece, become final. The order on the demobilization of the Serbian army was issued on 17 August and as early as on 19 August the king issued an order appointing, at the suggestion of the minister of the interior, the following prefects: Jovan Ćirković, the former chairman of the Serbian Educational Organization in Turkey, who had lead the activities of the Serbian popular office in Istanbul, was appointed the prefect of the Debar county; [25] Marko Novaković, member of the Administration of the township of Belgrade was appointed the prefect of the district of Bitola, and Spria Popović was appointed the prefect of the county of Skopje,[26] whereas Vojislav Kuzmanović, the actuary of the district of Moravski, was appointed the prefect of district Gornjedebarski. [27] In early September, Milorad Vujičić informed the minister of the interior that the office had been taken up by the prefects in Novi Pazar, Kumanovo, and Priština. The order of the Supreme Command provided for the appointment of: Vasa Aleksić, the former district prefect of the district of Loznica, the district prefect of Veles; Đoka Konstantinović of Paraćin for the prefect of Skopje; Svetislav Zarić, the notary of the district of Jagodina, for the prefect of the district of Kačanik, and Dragutin Jovanović for the prefect of district of Đakovica. In his report, Vujičić noted that a strong influence of Austria was present in the County of Pljevlja and that intelligent and prepared district prefects should be sought "so as to show that the Serbian authorities are not inferior to the Austrian in terms of intelligence, qualification, and discharge of duty generally." [28]

The Supreme Command ended its term of office on the king's order of 30 August 1913, and the very next day the new Regulation on the Administration of the Liberated Territories was issued. The Regulation was issued on the king's order at the suggestion of the Ministerial Board and on the basis of Article 5 of the Law on Administrative Arrangement of the Central State Administration from 1862. It was signed by all the members of the government and published in the official gazette, and

23 АС, Министарство правде, 1912, Ф 41 Р 31.
24 Јагодић, М.: *Нав. дело*, 23-24.
25 *Политика*, 20 August 1913.
26 *Политика*, 21 August 1913.
27 *Политика*, 22 August 1913.
28 АС, МУД, П, ПФ 22 Р 1/1913. Austrian influence in this area was a result of the Berlin Congress (1878), where Austria-Hungary was entitled to cccupy Bosnia and Herzegovina for 30 years and given the right to have its military garrisons in the sanzak of Novi Pazar, which was the start of achievements of the already set Austrian political goal of an eastward drift. The military presence of the Austrian-Hungarian monarchy in the sandzak of Pljevlja (which was part of the sanzak of Novi Pazar until 1880) was provided for in a special convention with Turkey; an annex to this convention provided that the Austrian garrisons would be located in Priboj, Prijepolje and Bijelo Polje. Instead of Bijelo Polje, however, a garrison with the command of all troops was later situated in the town of Pljevlja. Терзић, С.: *Стара Србија (XIX-XX век). Драма једне цивилизације*, Нови Сад – Београд, 2012, 220.

it was basically identical with the previous Regulation.[29] The provision that was significant for police administration in the new territories, in view of the fact that the Supreme Command no longer existed, was the one prescribing that the appointed officials (district and county prefects and police actuaries) were appointed on the king's orders at the suggestion of the minister of the interior.[30] The Regulation precisely provided that besides a district prefecture, there was a possibility for establishing a directorate within a district, which allowed for the establishment of separate departments for lager towns. Finally, the minister of the interior had been granted the power to appoint five inspectors for the supervision of police services in the liberated territories.[31] The validity of the Regulation was limited to the period until passing a law on annexation of the liberated territories, which was to be adopted by the National Assembly in its first forthcoming session.

The minister of the interior sent a telegraph to the inspector of the Police Department informing him of the cessation of activities of the Supreme Command and ordering him to make this known to all the county prefects in the new territories; he also emphasized that the Police Department and all other police authorities were placed under the jurisdiction of the Ministry of the Interior. [32] As of that moment, all police officials in the new territories were appointed, transferred, and released from duty on the king's orders issued at the suggestion of the minister of the interior. The decree of 2 September 1913 released from duty the prefect of the district of Bitolj, Svetislav Z. Paunović, who had been appointed to this position as a military conscript on the order of the Commander-in-Chief. [33] Another decree of the same date appointed Vladimir Živanović, formerly the police actuary of the district of Grocka, the prefect of the district of Veles, after the resignation of the former district prefect Milan Pešić had been accepted.[34] The decree of 12 October 1913 appointed Vasilije B. Aleksić, the former prefect of the district of Prilep, the prefect of the county of Priština; Vasilije Stojiljković, the former prefect of the district of Ljum, the prefect of the district of Bitolj; Miroslav Županjevac, the former prefect of the district of Florina, the prefect of the district of Prilep; the decree of 15 October appointed Živojin St. Vidaković, formerly the prefect of the district of Mitrovica, the prefect of the district of Negotin, and Radisav Đ. Nedić, formerly the prefect of the district of Negotin, the prefect of the district of Mitrovica.[35] The king's decree of 12 October 1913 released from duty the secretary of the prefecture of the County of Debar, Gliša Elezović, and a large number of police actuaries, appointed to their posts on the orders of the Commander-in-Chief.[36] The vacancies were filled on the same day by appointing new police officials in the king's decree issued at the suggestion of the minister of the interior.[37] During the months of November and December 1913, a large number of new district prefects were appointed, and there were also some replacements within the county prefectures. At the suggestion of the minister of the interior, the king's decree was

29 The Regulation was amended on three occasions: on 22 September and 11 November 1913, and on 9 February 1914. *Српске новине*, No. 181 of 3 September 1913, No. 200 of 26 September 1913, No. 238 of 12 November 1913, and No. 23 of 11 February 1914.

30 In all other instances where there was mention of "the supreme authority" it was replaced by the responsible ministry.

31 All expenses for all the branches of state administration were drawn from the loan granted by the Law on Exceptional Loans of 19 April 1913. *Стенографске белешке заседања Народне скупштине 1912-1913, редовни сазив*, Београд, 1913, 114-119.

32 АС, МУД, П, ПФ 22 Р 1/1913.

33 *Полицијски гласник*, No. 34 of 15 September 1913.

34 *Полицијски гласник*, No. 35 of 22 September 1913.

35 *Полицијски гласник,* No. 40 of 27 October 1913.

36 The following police actuaries were released: Andra Grozdanović in the district of Donjo-pološki; Jovan Đorđević in the district of Florina; Cvetko Đorđević in the prefecture of the county of Debar; Sotir Đorđević in the district of Donjodebarski; Jovan Cakić in the district of Mitrovica; Jovan Ristić in the district of Kumanovo; Marko Cerić in the prefecture of the county of Kumanovo; Cvetko Stamatović in the district of Vučitrn; Milan Nikšić in the district of Giljane; Stojan Dajić in the district of Ferizović; Đorđe Prodanović in the district of Podrimski; Bogoljub Pajantić in the district of Gora; Nikola Golubović in the prefecture of the county of Prizren; Veličko Jovanović in the district of Lab; Lazar Orlović in the prefecture of the county of Tetovo; Gligorije Drakalović in the prefecture of the county of Kavadarski; Gavrilo Kostić in the district of Skopje; Predrag Đorđević in the district of Šar-planina; Marko Petrović in the prefecture of the county of Tetovo; Milorad Zakić in the district of Brod, and Rista Mihailović in the district of Prilep. *Полицијски гласник*, No. 40 of 27 October 1913.

37 The following police actuaries were appointed: Mihailo M. Stevanović in the prefecture of the county of Skopje; Milan Nikolić in the district of Podgor; Dragutin Popović, Nikola Radivojević and Dragojlo Ž. Mihailović in the district of Podgorski; Radomir Stanković and Janićije Konstantinović in the district of Skopljan; Mihailo St. Janković and Aleksandar Ristić in the prefecture of the county of Kumanovo; Cvetko Josić in the prefecture of the county of Kavadar; Kosta Naunović in the district of Đevđelija; Đorđe M. Rosić in the district of Kumanovo; Radoje Vlajković in the district of Mitrovica; Aleksandar A. Lazarević in the district of Vučitrn; Aleksandar Božipopović in the district of Lab; Josif Milutinović in the district of Giljan; Dušan Zdravković in the district of Ferizović; Petar Radenković in the district of Podrim; Toma Đorđević in the district of Gor; Lazar Savić in the district of Šar-planina; Živko Tomić in the prefecture of the county of Prizren; Dragutin M. Lazović and Mihailo Barbulović in the prefecture of the county of Tetovo; Dragiša B. Popović in the district of Donjopološki; Vojislav Lazarević in the district of Brod; Kosta Aleksić in the district of Florina and Mihailo Andrejević in the district of Prilep. *Полицијски гласник*, No. 40 of 27 October 1913.

issued on 6 November appointing Milan Nadašković for the prefect of the district of Carevo Selo, Đorđe Pelivanović the prefect of the district of Giljan, and Božidar Golubović the prefect of the district of Ferizović; the decree of 10 November appointed Luka B. Petrović the prefect of the district of Sjenica, Jevta Bekrić the prefect of the district of Ohrid, Milorad Žeravčić the prefect of the district of Drenica, Rista Protić the prefect of the district of Kačanik, and Kosta A. Popović the prefect of the district of Kruševac; the decree dated 18 November transferred the prefect of the County of Debar, Jovan Ćirković, to the position of the prefect of the County of Ohrid as a matter of official duty, and appointed Negoslav J. Đaja the prefect of the district of Veles, Vladimir Živanović the prefect of the district of Maleš, Dragomir Jovanović the prefect of the district of Kriva Palanka, Vojislav Kuzmanović the prefect of the district of Struga, Stojan Đorđević the prefect of the district of Gornji Debar, and Milutin Veljković the prefect of the district of Galica; the decree of 20 November appointed Milutin Kokanović the prefect of the district of Gnjilane; the decree dated 28 November appointed Svetozar O. Popović a police inspector of the Ministry of the Interior, Josif Studić – the prefect of the County of Zvečan and Jovan Spiridonović the prefect of the district of Đevđelija; the decree of 4 December appointed Miladin Marinković the prefect of the district of Štavice; the decree of 11 December appointed Ranko D. Trifunović the prefect of the County of Skopje, Svetislav Z. Paunović the prefect of the County of Kumanovo, whereas Kosta J. Stojanović and Dragoljub Đ. Jovanović were appointed members of the township administration Skopje, while Milan Mišić became the prefect of the district of Poljaničkog, Ilija Aranđelović the prefect of the district of Kičevo, and Nikola Milošević the prefect of the district of Poreč.[38]

The annexation of the new territories to the Kingdom of Serbia was performed by the Proclamation of King Petar to the Serbian People on 7 September 1913, which was ratified by all the government members and made public in an official paper.[39] The Proclamation said that the new territories would be governed in accordance with the king's decrees and according to the decisions of the government regarding the implementation of the existing laws and their introduction in the new territories until the administration of the annexed territory was legally established. This suggested the political willingness of the Serbian government to maintain the special regime of administration in the new territories for some time. Although the Proclamation emphasized that the king would particularly take care that the population of the new territories, regardless of their religion and ethnic origin, be satisfied in every respect, enlightened and protected by justice and security, the legal equality of the citizens in the new territories and the citizens from within the old border of the Kingdom of Serbia was absent. On the same day, King Petar issued a special Proclamation to the peoples of the liberated and united territories who were appealed on to forsake all "previous misconceptions, discords and disagreements" and to jointly, "in a brotherly embrace" sweep clean "the faces of your beautiful homelands of all traces of the long-lasting slavery" and thus "catch up with the brethren in the old borders of Serbia in a short time and be equal with them in every respect." [40]

The decision issued by the minister of the interior on 7 September 1913, based on articles 17 and 32 of the Regulation on the Administration of the Liberated Territories, introduced a new territorial and administrative division of the new territories. The annexed territories were administratively divided into 11 counties comprising 46 districts: the Bitola County, based in the town of Bitola, comprising the districts of Bitola, Kruševo, Ohrid, Prespan, Prilep, and Florin; the Debar County, based in the town of Debar, consisting of the districts of Gornjodebarski, Donjodebarski, and Rekonski; the Kavadar County, based in the town of Kavadar and including the districts of Valandovski, Đevđelijski, and Negotinski; the Kumanovo County, based in the town of Kumanovo and consisting of the districts of Kratovo, Kriva Palanka, Kumanovo, and Preševo; the County of Novi Pazar, based in the town of Novi Pazar and including the districts of Mitrovica, Novi Pazar, and Sjenica; the County of Pljevlja, based in the town of Pljevlja, incorporating the districts of Nova Varoš, Pljevlja, and Prijepolje; the County of Prizren, based in the town of Prizren, consisting of districts of Gora, Đakovica, Ljum, Metohija, Podgora, Podrimlje, and Šarplanina; the County of Priština, based in the town of Priština, comprising the districts of Vučitrn, Giljan, Lab, Priština, and Ferizović; the County of Skoplje, based in the town of Skopje, including the districts of Veles, Kačanik, and the township of Skoplje; the County of Tetovo, based in the town of Tetovo, incorporating the districts of Brodski, Gornjopološki, Gostivarski, and Donjopološki; and the County of Štip, based in the town of Štip

38 *Полицијски гласник*, No. 43 of 17 November, No. 44 of 24 November, No. 45 of 1 December, No. 46 of 8 December, and No. 47 of 15 December, Nos. 48 and 49 of 25 December 1913.
39 *Српске новине*, No.,186 of 9 September 1913.
40 *Српске новине*, No. 187 of 10 September 1913.

and consisting of the districts of Kočanski, Maleški, Radoviški, Svetonikolski, and Štipski.[41] There were certain problems related to the introduction of the Serbian civil administration in the border areas until the final delineation between Serbia on the one hand and Albania, Greece, and Montenegro on the other.[42] Certain modifications of this territorial and administrative division of the new territories were made in October 1913.[43] The decision of the minister of the interior dated 19 November 1913 abolished the counties of Pljevlja (with a new county being established in Prijepolje) and Debar (with a new one being established in Ohrid, incorporating the districts of Ohrid, Gornji Debar, and Struga), and established the new County of Zvečan, based in the town of Kosovska Mitrovica, and comprising the districts of Mitrovica, Drenica, and Vučitrn.[44]

The Government of the Kingdom of Serbia conducted a poll in October and November among the prefects and judges in the new territories, asking them to answer two questions: 1) which laws of the Kingdom of Serbia could immediately be implemented in the new territories and which should be introduced gradually, and when; 2) what is the shortest period of time for the duration of which the special legislation should apply to the new territories. All of the county prefects found that political and administrative laws (providing for the election of members of parliament, for counties, districts and municipalities, association and gatherings, press, etc.) should not be immediately introduced in the new territories, because the local population was not mature enough for political freedoms, for which they were to be prepared gradually. In their opinion, the priority was to ensure the security of persons and property for all, regardless of religion or ethnic origin. The introduction of self-rule institutions in the municipalities, districts, and counties that existed within the old borders would be dangerous, because these institutions would, due to the existing religious antagonisms and absence of awareness of the civil equality among the local population, be used for mutual retributions. The main reason for the county prefects' view that the population of the new territories should not be granted political freedoms was that they doubted the loyalty of the Muslim population to the Serbian state. As regards the duration of the exceptional regime in the new territories, the opinion ranged from at least three years (according to the prefect of the County of Debar, Jovan Ćirković) to fifteen years at the most (the prefect of the County of Novi Pazar, Milivoje Petrović).[45] County judges shared this opinion, with an exception of Jovan M. Obradović, judge of the county court in Tetovo, who unconditionally supported the immediate and complete unification between the new territories and the old ones, viewing the exceptional regime as a "colossal mistake" that would inhibit assimilation of the population and encourage foreign propaganda.[46]

The territorial and administrative division of the new territories represented an integral part of the Bill on Annexation of Old Serbia to the Kingdom of Serbia and Its Administration. Thus it included the question of administrative arrangement of the legal status of the new territories in the agenda of the Assembly, in keeping with the promise contained in the king's Proclamation. The government expressed its attitude towards the administration in the new territories in the royal speech of 17 October 1913, making official its intention to introduce into the new territories a regime that would for a period of time (a decade at the most) differ from the administration within the old borders of the Kingdom. The committee for drawing up the address presented four different proposals to the Assembly on 24 October 1913. The proposal of the address made by the majority

41 АС, МУД, П, ПФ 15 Р 143/1913. *Српске новине*, No. 186 of 9 September 1913.

42 Problems occurred in the already mentioned county of Florina, which was given to Greece following the signing of the agreement on the Serbian-Greek border on 16 August 1913, in Piskopeja and the district of Ljum which were included in the territory of Albania based on the Decision of the Conference of Ambassadors Conference in London on the North and Northeast border of Albania on 22 March 1913. The district of Pljevlja also suffered substantial changes: although it was placed under Serbian rule by the Agreement on the border between Serbia and Montenegro of 12 Novermber 1913, the president of the Serbian government Nikola Pasic ceded the district place of Pljevlja and the area to Berane to Montenegro. *Балкански уговорни односи I (1876-1918)*, приредио М. Стојковић, Београд, 1998.

43 The district of Valdanovo was renamed to Dojran district, based in Dojran district; the district of Brod became the district of Porečje, based in Brod, and the district of Sveti Nikola became the district of Ovče Polje, based in Sveti Nikola. *Српске новине*, No. 237 of 29 October 1913. Later, the practice of changing the names of the counties and districts continued in order to restore the old terms that would be closer to the Serbian medieval names.

44 АС, МУД, П, ПФ 15 Р 143/1913.

45 The fact that the heads of districts in the areas north of Šar-planina (Pljevlja, Novi Pazar, Prizren and Priština) pleaded for a longer duration of the exceptional regime suggested that the situation in these areas during the Turkish government had been worse than in areas south of the Šar-planina. АС, МУД, П, 1913, Ф 19 Р 125.

46 The total of of seven reports of district courts were preserved, those of Kumanovo, Novi Pazar, Pristina, Tikveš, Prizren, Štip, and Tetovo. АС, МП; 1913, Ф 30 Р 83. The district courts and the Great Court in Skopje were established on the basis of the Regulation on the Administration of the Liberated Territories from 1912, which in this respect was not significantly amended by the Regulation from 1913.

deputies, members of the Radical Party, was the paraphrase of the royal speech. The draft address of the deputies of the Independent Radical Party contained the list of steps to be taken in Old Serbia, without any reference to the form of administration in it. The deputies of the Progressive Party demanded in the proposed address that the government convene the Grand National Assembly in order to review the Constitution and modify it so as to apply to the new territories immediately thereafter. The draft address of the National Party (former liberals) suggested that a "deserving, strong, relentlessly just, and sacrosanct" military regime be introduced in the new territories for a period of time. During the debate in the assembly, the attitude of the government regarding the necessity for an exceptional regime in the new territories was mostly defended by the minister of the interior Stojan Protić, who pointed out that the goal of the provisional regime was "only to prepare, to educate the newly-acquired counties for constitutional and political regime of the mother country." [47] On 25 December 1913, the government presented to the Assembly the Bill on the Annexation of Old Serbia and Its Administration together with the opinion of the State Council. The National Assembly did not manage to take a vote on this draft before the outbreak of World War One, and during the war it was not on the agenda, so that the law was never passed. [48] The bill envisaged the administrative division of the new territories into 12 counties as follows: Bitoljski (including the following districts: Bitola, Kičevo, Kruševo, Morihovo, Prespan, and Prilep), Bregalnički (including the districts of Kočan, Maleš, Ovče Polje, Radoviš, Carevo Selo, and Štip), Zvečanski (including the districts of Vučitrn, Drenica, and Mitrovica), Kosovski (including the districts of Gnjilane, Gračanica, Lab, and Nerodimlje), Kumanovski (including the districts of Kratovo, Žegligovo, Kriva Palanka, and Preševo), Ohridski (including the districts of Debar, Ohrid, and Struga), Prizrenski (including the districts of Gora, Podgora, Podrimlje, and Šar-planina), Prijepoljski (including the districts of Mileševa, Nova Varoš, and Priboj), Raški (including the districts of Deževo and Sjenica), Skopski (including the districts of Veles, Kočani, and Skopje), Tetovski (including the districts of Galički, Gornjopološki, Donjopološki, and Porečki), and Tikveški (including the districts of Dojran, Đevđelija, and Tikveš).[49]

In that way the territorial division of the new territories was practically completed in early December 1913. The new territories were administratively divided into the following counties: Skopljanski (including the districts of Skopljanski, Veleški, and Kačanički), Bitoljski (including the districts of Bitoljski, Kruševski, Prespanski, Prilepski, Morihovski, and Kičevski), Kavadarski (including the districts of Dojranski, Đevđelijski, and Negotinski), Kumanovski (including the districts of Kratovski, Krivopalanački, Kumanovski, and Preševski), Novopazarski (including the districts of Novopazarski and Sjenički), Prijepoljski (including the districts of Novovaroški, Pribojski, and Mileševski), Prizrenski (including the districts of Gorski, Podgorski, Podrimski, and Šarplaninski), Prištinski (including the districts of Giljanski, Labski, Prištinski, and Ferizovićski), Tetovski (including the districts of Porečki, Gostivarski, Donjopološki, and Galički), Štipski (including the districts of Kočanski, Radoviški, Ovčepoljski, Štipski, Maleški, and Carevoselski), Ohridski (including the districts of Gornjodebarski, Ohridski, and Struški), and Zvečanski (including the districts of Vučitrnski, Dreničkі, and Mitrovački).[50]

CONCLUSION

The initiated process of integrating the new territories into the Kingdom of Serbia was interrupted by the outbreak of the World War One in 1914. In a little less than a year and a half from the liberation of these territories, they were administered by the Serbian government without par-

47 Questioned about the number of the citizens of the new territories among the national deputies and about the process of decision making in general in the administration of these areas, Protić said: "We did not ask them anything even when we were liberating them. So, gentlemen, the more we know about this matter, the more older and mature we get, the fewer reasons do we have, gentlemen, and it would be unwise even, to ask them how they need to be managed in the first years of their national freedom". "*Стенографске белешке заседања Народне скупштине, 1913-1914",* Београд, 1914, 4, 107-113, 249-251.

48 The decree of King Peter of 3 December 1913 (Following the parliamentary debate on the address, and prior to submitting the bill on the organization of new teritories) introduced some provisions of the Constitution of the Kingdom of Serbia in the new territories in keeping with the proposal of the Ministerial Council and on the basis of Article 5 of the Law on Central State Administration and the Proclamations of annexation. For more details, see: Јагодић, М.: *Нав. дело*, 59-61.

49 *Стенографске белешке заседања Народне скупштине, 1913-1914*, 505-517.

50 *Српске новине*, No. 264 of 1 December 1914.

liament (Assembly), introducing separate laws, decisions, and even some parts of the Constitution, and adopting special regulation. The administration in the newly-liberated territories was determined both by the administrative capacities of the Kingdom of Serbia and by the political attitude of the Serbian government. The main problem in organizing the administration in the new territories was the shortage of sufficiently qualified personnel from which to recruit police officials and other civil servants. Therefore, during the stage of provisional administration the newly-founded county police departments, as well as those in districts and municipalities were manned from among the ranks of military conscripts, which intensified the already existing conflict between the civil and military authorities. Following the annexation of these territories to the Kingdom of Serbia, the vacancies in the bodies of civil administration were filled by transferring the officials from the former borders in the new territories, which had twofold consequences. By engaging exemplary civil servants in the new territories, a good image of the Serbian rule was created among the local population, but the administration within the old borders suffered because of this. Conversely, deploying insufficiently apt officials in the new territories could have provoked mistrust among the local population towards the institutions of the Serbian state. An aggravating circumstance was that Austria-Hungary failed to recognize the outcome of the 1912/13 liberation. Namely, certain circles in Vienna estimated that, following the Balkan Wars, the process of creating "the Greater Serbia" was initiated and that it had to be stopped even at the cost of a great war. It was along this line that Vienna supported Albanian and Bulgarian aspirations to certain territories of the Kingdom of Serbia. Bearing in mind all of the above mentioned, it becomes clear why the Serbian government decided to introduce a separate legal regime in the new territories. The exceptional regime was to last for six years – the period which the government considered necessary for the population of the new territories to get used to living in the Kingdom of Serbia. The main difference between the citizens within the old borders and the citizens in the new ones was that the latter were denied self-rule, voters' rights, as well as some constitutional rights and freedoms (freedom of press, freedom of speech, and freedom of assembly). The tax systems also differed, as well as the arrangement of courts and criminal justice regulations (they were stricter when compared with the ones in the pre-war Serbia). The Serbian government did not have sufficient time to carry out a reform of agricultural relations and thus resolve the key problem of the new territories. As regards all other segments, the new territories were completely equal with the pre-war Serbia. The police administration in the new territories was organized in the same way as in the old territories, taking into account the existing social (economic, educational, and cultural) differences. Police officials in the new territories were faced with problems that had not existed in the old borders, the most characteristic of which were the feud and acts resulting from the unresolved mutual relations between former Turkish beys and their servants. This is why they had to show subtlety in approaching the local population in these territories, unused to orderly democratic institutions, and therefore frequently addressed the Ministry of the Interior asking for guidance in their actions. Despite isolated instances of malpractice, misunderstanding, and failure in adaptation, the police officials in the new territories, on the whole, managed, through their work and conduct, to secure the trust of the local population in the Serbian state.

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PSYCHOSOCIAL VULNERABILITY, LIFE STRESS AND COPING IN PRISON POPULATION

Assistant Professor **Dragana Batić**, PhD
Faculty of Security, Skopje, Republic of Macedonia

Abstract: Being in prison is a very intense stressful situation for most people. It is known that the incidence of suicide, self-harm, violence and even murder in prisons is increased compared to the general population.

This paper deals with the sources of stress and difficulties that prisoners face with, as well as the mechanisms that are used in dealing with stress.

The factors which contribute to adjusting to prison may be static (factors of age, race, marital status, level of education, pre-prison employment, mental health status, prior criminal history) and they cannot be changed. Dynamic characteristics are the ones that can be changed, such as the educational level, poor communication skills, and current prison gang affiliation.

Recent studies emphasize the dynamic factors, since they are subject to change, present a base of successful treatment. One of a dynamic personal attributes is a prisoner's ability to cope. Many researchers have applied the general concept of coping in prison researches. In this article we will provide the most important and the most recent research in this field. Special attention will be paid to Johnson's construct of mature coping (Johnson, 2002), which postulates that persons deal with their problems without violence.

This way of coping is the most desirable, since it does not lead to a violent, manipulative and helpless behavior of inmates. Prisoners' possession of positive coping skills will stop their involvement in serious prison misconduct and violence.

Keywords: prison, stress, coping, inmates.

INTRODUCTION

The term stress refers to the category of highly stressful and significant dimensional phenomena, so that it is almost impossible to give one general and uniform definition. Therefore, different definitions of stress are accepted: stress as a reaction, stress as stimulus from external or internal environment and stress as a special relationship between man and his environment.

Stress as a stimulus means disasters, major life changes, chronically poor living conditions. Stress as a reaction refers to the way in which one reacts to stressful situations and contains two components: physiological (physical changes) and psychological (behavior, thinking, emotions). When the stress is seen as a process, the emphasis is on the interaction between adaptation of a personal relationship between the person and the environment, as the stressor or stressful situations.

According to this view, stress is a condition that is results from the transaction between a person and an environment that leads the person to perception of discrepancies between the demands of the environment and the biological, psychological and social capacities of individuals.

Lazarus and Folkman (1984) define stress as the relationship between people and their environment, which is from personal point of view estimated as a situation that exceeds one's capacity and impairs one's welfare.[1] Therefore, they propose a stress model that emphasizes transactional nature of stress, viewing it as a two-way process: the environment causes stress, and the individual finds ways to cope with it. Thus the role of cognitive appraisal is emphasized, which is a mental process by which people evaluate two factors: the threat to their own well-being and capacity to cope with the stressor. According to Lazarus and Folkman there are two types of valuation: primary and secondary. During the primary valuation of persons seeking responsible application of environment and assess the degree of threat to their own well-being. Secondary valuation occurs simultaneously with the primary one. It includes beliefs in and feelings of either opportunities or inability to cope with the situation.

1 Lazarus and Folkman (1984): Stress, evaluation and coping, Naklada Slap, Zagreb

There are two groups of factors that lead to the assessment of stressful situations: factors related to the person and factors related to the situation. The first group of factors includes: intellectual ability, motivation, and personality traits. Thus, individuals who have higher self-esteem and confidence in themselves often believe that they have the capacity to cope with stress and often see the situation as a challenge, and not as a threat.

Lazarus divides primary stress evaluation into three categories: threat, damage and challenge. Threat and damage differ with respect to the time of appearance: threat is an anticipation of damage and the damage is an already experienced loss. This distinction is important because of the choice of coping in a given situation. The challenge, however, includes an assessment that transaction can be managed and that the outcome depends on the person in question. So the challenge is to estimate that the possibility controls the outcome. Such an assessment, if realistic, encourages the person and simplifies the choice, and if it is unreal (self-deceptive) then the relationships become more complex.

Secondary assessments, according to Lazarus, present evaluations of different options of coping. Thus, the person takes into account environmental factors and personal factors (values, tolerance of frustration, self-esteem, etc.). Persons aim to change problematic transactions between themselves and the environment, and they are oriented on unpleasant emotions or problems.

DEALING WITH STRESS

The way a person evaluates a situation or an event strongly affects the process the person's confrontation with the situation and one's emotional reactions. Different people may experience the same situation differently because people do not have the same ability to cope with stress. Because of the fact that stress is an imbalance between the people and the environment, coping means an action (cognitive and behavioral), which seeks to reduce or to tolerate the conflict. McCrae and Costa (1986) think that coping is a response to stressful situations, which helps establishing psycho-social adjustment.[2]

When stress, and the concept of coping, is viewed as a process, Lazarus and Folkman define coping as "permanently changeable cognitive and behavioral efforts to deal with the specific external and / or internal demands that are assessed as a burden or as so difficult to go beyond the resources that a person has".[3] (Lazarus and Folkman, 1984)

Essential functions of coping are the regulation of unpleasant emotion and problem-solving that creates stress.

According to Lazarus and Folkman, there are two main forms of coping: coping focused on the problem and coping focused on emotions (Lazarus, Folkman, 1985). Coping focused on emotions aims to reduce pain and includes strategies such as avoidance, minimization, distancing, selective attention, positive comparisons and finding positive values in negative events. There are also: avoidance (denial), positive thinking, using of humor, religion, reinterpretation, imagery (wishful thinking, imagining), emotional expression, social support, self-control, and passivisation.

Behavioral strategies such as exercise, meditation, seeking emotional support, as well as alcohol consumption or, venting anger also represent forms of coping focused on emotions. Coping focused on the problem is active coping, which consists of solving the problem which is the source of stress. General coping strategies of this kind are action planning (cognitive effort focused on finding solutions to problems) and taking action (taking particular actions to solve the problem).

Although confronting the problem is used when a person assesses a significant control over the stressful event, and that typically involves taking action, and when it is considered that one cannot (or can only slightly) affect the source of stress, means that these two approaches are not completely separated. Depending on the context both methods can be effective. Dysfunctional ways of coping must be separated from the previous two. Thus the "behavioral withdrawal", which includes feelings of helplessness - when people give up, as well as "mental withdrawal" when trying to distantiate oneself from the problem by sleeping, daydreaming, alcohol or drug abuse. Some people use "denial" as a dysfunctional strategy of coping."[4] Sometimes these methods can be effective as e.g. during war times, when an enemy attack is expected or when parents are dealing with terminally ill children.

2 McCrae , Costa (1986): Personality, coping and coping effectiveness in an adult sample, Journal of Personality, 45, 385- 405
3 Lazarus and Folkman (1984): Stress, evaluation and coping, Naklada Slap, Zagreb
4 Carver, Scheir and Weintraumb (1989): Assessing coping strategies: A Theoretically based approach, Journal of Personality & Social Psychology, 55, 652- 660

Muli Lahad, a psychologist from Israel who deals with psychotherapy of traumatized people, believes that, in order to successfully help one individual exposed to stress, we need to recognize the channels of communication of the individual with the world. He noticed that people use a maximum of six channels of communication in coping with the world, and thus also for coping with stress: B (Belief), beliefs or values; A or emotionality, feelings and moods, I or imagination and creativity, S, or sociality and relationships with other people, C - cognition, facts and solving specific problems or physiological PH and physical activity.[5]

Lahad called his theory- BASIC PH. Although for a normal existence we need to use all 6 channels for coping with stress, studying the speaking and behavior of people who are under stress, Muli Lahad found that people primarily use one, two or three channels. He also believes that by analyzing the speech or by implementation of specific diagnostic techniques it can be observed which channels of communication are dominant. That is necessary for developing a strategy to help traumatized individuals. This theory is very practical, especially because it provides a technique called "the story of six pictures," which can quickly identify the channels that the individual already has, and which channels should be developed in order to better cope with stressful situations. This model of stress and coping is very applicable and could be well adapted to the prison population in order to develop healthy ways of coping.

EXPOSURE TO STRESS IN THE PRISON ENVIRONMENT

Being in prison is a highly stressful situation for most people. On a scale of stressful life events, according to psychiatrists Holmes and Rache, being in prison is at the top (in the fourth place). It is known that the incidence of suicide, self-harm, violence and even murder in prisons is increased as compared to the general population. The main problem and stressors that are listed in the research are: the lack of family and friends, lack of freedom, lack of specific items or activities, conflicts with other prisoners, regrettable and disturbing thoughts about children and the past, concerns about the future after the release, boredom, inadequate accommodation, unsatisfactory level of medical services, lack of support from the staff, concerns for personal safety. Negative aspects of the prison environment, such as the presence of other inmates, overcrowding, lack of intimacy, contribute even more to an inmate's experience of stress. According the researches made by Sykes and Shpadijer Djinić, deprivation of security is one of the main deprivations that prisoners face. Other sources of stress are the respect of prison rules, staff expectations, other inmates, and sexual harassment by other inmates.[6]

The results show that there are large individual differences in adaptation to prisons. Individual differences are related to gender, age, race and family structure. Thus, Pearline Schooler (1978) and Kessler (1979) found that women are more vulnerable to stressful circumstances in prison than men. Separation from friends and relatives and especially from their children is one of the biggest stressors that induce stress among the women in prison. "Probably the most difficult aspect of imprisonment for women is separation from their children."[7] Family members often do not want to take children to visit their mothers in prison and mothers themselves sometimes do not allow the children to stay in the prison surroundings. Research shows that mothers normally plan to live with their children upon release from prison.[8]

Inmates, whether they are mothers or not, do not show different patterns of emotional distress when they are in prison. Although they show similar amounts of depression, anxiety patterns differ significantly. Both of the two groups experience anxiety, but, while the level of anxiety among women who are not mothers decreases, the level of anxiety among mothers increases, which can be explained by the constant stress of separation from their children.[9]

It is interesting that prisoners serving shorter prison sentences show the following reactions to stress: anxiety, depression, difficulty in sleeping, loss of appetite, and hopelessness to a greater extent than those serving longer prison sentences (Racch, 1977, 1981, Sapsford, 1978, 1983, Zamble and Porporino, 1988).

5 Lahad M.(1993): The community stress prevention, Kityat Shmona, Israel

6 Sultan, Long, Kiefer, Schrum, Selbz & Carlson (1977): The female offender's adjustment to prison life> A comparison of psycho-didactic and traditional supportive approaches to treatment, In Chaneles Ed Gender issues, sex offenses&criminal justice> Current trends, New York> Haworth Press

7 Crites, 1976: The female offender, Lexington, MA: Lexington Books

8 Baunach, Mothers in prison, New Braunswick, NJ: Transaction Books, 1985

9 Fogeli Martin, (1992): The mental health of incarcerated women, Western Journal of Nursing Research, 14 (1), 30 -47

Boothby and Durham (1999) examined depression on a sample of 1494 prisoners of both sexes upon arrival in prison facility using Beck depression inventory and the average result showed mild levels of depression. However, some groups were pointed out as showing higher levels of depression: women, young people, people familiar with closed institution, those who were previously convicted and Caucasians. In stressful situations, women avoid confrontation, accept personal blame and rely on social support more than men. Women also experience failure, frustration, indecision, body changes, fatigue and loss of will to live.[10]

Longitudinal studies of Zamble and Porporino on Canadian prisoners showed high levels of anxiety and depression in prisoners at the beginning of serving the sentence, but noted that, as the time was passing by, there was a significant decrease of anxiety and depression. The levels of guilt, hopelessness, and helplessness have also decreased, and in time the level of their self-esteem increased. So, the conclusion was that during a seven-year period there were positive changes in the behavior of inmates resulting in a better adaptation. These changes are explained by the process of maturation, avoiding conflict, accepting rules because of better life in prison and constant hope of early release. These results indicate that the widespread belief about the devastating impact of the prison on a person is wrong, especially when it comes to longer sentences.

In their study of coping convicts Zamble and Porporino (1990) note that their methods of coping are on a low level of efficiency, and that - because, while in prison, the prisoners do not learn effective ways of coping that they will need when they are free - they return to imprisonment because they are not able to solve the problems when they are released. They noted that prisoners who use inadequate coping strategies were repeat offenders, and this was their basic weakness. They criticized the prisons for not taking sufficient action towards improving the inmates' coping strategies. They claimed that the prisons did nothing to improve the behavior of prisoners, but only provided a kind of "deep freeze"[11]. The authors presented the thesis that prisoners ended up in prison because of inadequate coping strategies in their daily lives and therefore they proposed penological treatment programmes for the development of cognitive and behavioral skills, in which the inmates would learn effective strategies in order to cope with problems. The prisoners should immediately, at the very beginning of serving their sentences, become involved in the programmes that will increase their motivation for change and enable them to successfully deal with problems. But, because the problems in prison and the ones in freedom are not the same, the authors recommend the inclusion of prisoners in special programmes before their release and immediately after the release from the institution in order to ensure that they are ready to deal with the problems that await them outside.

DEALING WITH STRESS IN PRISON: DEVELOPING POSITIVE PRISON CULTURE

Factors of adjusting to prison may be static (gender, unfavorable conditions of primary family, criminal history), which cannot be changed, or dynamic, that can be changed, which include: education, association with antisocial persons, mechanisms used to deal with stress. Recent studies of penological treatment emphasize dynamic factors, since they are susceptible to change and are based on successful treatment. One of the most important dynamic factors certainly is the skill of dealing with the stress of prison conditions. Does being in prison, especially when it comes to long prison sentences or lifetime prison sentences, mean disruption of life and normal behavior ? There is a widespread opinion that life in prison leads to negative and destructive changes in a prisoner's personality. It is believed that prisoners who serve life sentence have nothing to lose and are therefore prone to uncontrollable, violent behavior, and even murder of other prisoners and guards. This is not only inaccurate, it is just the opposite. Research has shown that these prisoners violate prison rules less frequently (Sorenson, Wrinkle, 1998; Johnson, Dobrzanski, 2005). Prisoners sentenced to life imprisonment do not adapt well because prison life is easy - they are well adapted because of their own interest in getting the most out of a very difficult life situation because the prison is their home that they have not voluntarily entered. They want to get the most they can out of limited life behind the bars.[12]

10 Boothby and Durham (1999): Screening for depression in prisoners using the Back Depression Inventory, Criminal Justice an Behaviour, 26, 107- 125

11 Zambleans Porporino, (1990): Coping, imprisonment and rehabilitation, Criminal Justice and Behavior, 17, 53 -70

12 Johanson R.: Life without Parole, Our Death Penalty: Are Life Sentenced Inmates

Johnson (2002) introduced the concept of "decent prisons" in his book *Hard Time*: *Understanding and Reforming the Prison* which promotes more humane approach towards prisoners. The aim of decent prisons is to adapt to prison life behind bars in a healthy and responsible manner and develop mature coping mechanisms for life in prison but also in freedom. "To achieve this goal, the prisoners must learn to cope with life problems as responsible human beings who achieve autonomy without violating the rights of others, security without resorting to violence and deception, and connection with others as the best and most complete expression of human identity."[13]

For Johnson, "decent prisons" reduce stress and encourage mature confrontation between inmates if:

1) prisoners solve their problems in a simple way;
2) they avoid scams and violence;
3) they build mutual and supportive relationships with others.

Prisoners who were equally successful with other inmates and staff, as well as their loved ones, are human beings who have dignity and value, and are solid citizens of the prison community.[14]

"The main features of mature coping are autonomy, security, and connection with others."[15]

Based on interviews with prisoners sentenced to life in prison, Johnson concluded that those who have a sense of control over their lives are better adapted to life in prison than to life in freedom. Prisoners sentenced to life imprisonment say they are not pawns of prison routines, but rather active participants in their daily lives. They develop awareness about their life here and now and must live in the present, striving to enjoy life as much as possible. Some of them are devoted to reading religious literature, some use television as a window to the world, some take up physical exercise. Their statements have shown prevalence of personal routine that contributes to a sense of autonomy. Highly organized personal routines provide stress protection to prisoners sentenced to life imprisonment: a safe world where they feel safe. Organizing their routines and avoiding trouble, they have control over their lives in prison as one unsafe environment and this makes their lives much safer. In prison, some prisoners develop empathy for others and help the new ones not to make the same mistakes as they did, especially in the beginning. Some older prisoners become mentors to younger ones and it makes them proud because they want to feel useful. Good lasting relationships with other inmates reduce loneliness, provide a source of support and open up the possibility of action that makes the prison more tolerable.

Conrad, like Johnson, uses the term "civil" to emphasize the humane treatment of prisoners. He believes that prisoners have six fundamental rights: the right to personal security, the right to care, the right to personal dignity, the right to work, the right to self-improvement and the right to a future.[16] The most comprehensive analysis of decency of prison was given by Liebling (2004) who investigated the moral effect of prisons. Decency of prison is based on four main dimensions:

1) the dimension of a relationship of respect, humanity, good relationships with the staff and support;
2) the dimension of regime conceived in terms of fairness, order, safety, welfare, personal development, contact with the family and decency;
3) the dimension of social structure and social life ;
4) the individual dimension relating to the meaning and quality of life.

This author has found that the moral practice in prisons is associated with the state of the inmates. In prisons that are ranked low in terms of morality, the individuals are found to be exposed to a higher degree of psychological suffering, anxiety, depression and higher rates of suicide. She believes that fairness builds trust and that fairness and respect are associated with well-being.[17]

Disruption of discipline in prisons is a known issue, which is considered to be predictable and controllable provided there is effective policy management, along with practice and specialized programmes. Prisoners rated respect as the most valuable characteristic of the staff. Although they are rare, studies on decent treatment of prisoners have several common elements: respect, opportunities for personal development of self-determination, fairness, trust, support and security. Based on these findings, further research should aim to ensure decency in prisons so the treatment effects will be better.

13 Ibid
14 Ibid
15 Ibid
16 Conrad (1981): Where there hope, there's life in Fogel Hudson : Justice Model , pp 17 -19, Cincinnati: Andreson
17 Liebling, A.; assisted by Arnold, H. (2004) Prisons and their Moral Performance: A Study of Values, Quality and Prison Life, Oxford: Clarendon Studies in Criminology, Oxford University Press

CONCLUSION

Although stress in prison population is normal, psychological testing of prisoners sentenced to life imprisonment shows that even they, or rather, they above all others, can cope with stress and develop positive ways of coping that will not hurt others, and that will contribute to their development as persons. If working on oneself is possible for people for whom the prison is their only home, it is even more possible for those who have to spend a certain limited period of time in prison. Recent studies of penological treatment emphasize the dynamic factors, since they are subject to change and may present the basis of successful treatment, and one of the most important is certainly the skill to deal with stress in prison conditions. Johnson's concept of "decent prisons," which implies autonomous behavior of prisoners without violating the rights of others, avoidance of fraud or violence, bonding with others and helping them, encourages and represents a starting point for a successful treatment. Johnson believes that the role of the staff is of great importance in designing of the "decent prison" and recommends the staff to actively work on resolving the problem of adjustment of prisoners. They should treat prisoners with respect, and be fair and impartial. Seiter (2002) argues that rude and harsh manner and unwillingness to acknowledge the real problems of prisoners, lack of respect towards prisoners, creates tension between inmates and staff. Developing programmes for the treatment of prisoners is important for the improvement of strategies for coping with stress, as the prisoners end up in jail because of inadequate coping strategies in everyday life. Programmes for the development of cognitive and behavioral skills are recommended to help the inmates learn effective strategies of coping with problems, both the ones they have in prison and those that await them when they are released.

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THE LEGAL AND OPERATIONAL FRAMEWORK OF THE JOINT INVESTIGATIVE TEAMS IN THE EUROPEAN UNION

Associate Professor **Aleksandar Chavleski**, PhD
Faculty of Security, Skopje, Republic of Macedonia

Abstract: Joint Investigative Teams (JITs) represent investigation teams set up by certain number of police officers and magistrates from at least two EU Member States for investigating certain criminal cases. Also, non-EU Member States may participate in these teams if consent by the participating EU Member States is provided. Firstly, indirect reference to the Joint Investigative Teams was included in Art.29 of the Treaty of Amsterdam (1999), which provided that the AFSJ must be achived through preventing and combating crime. Consequently, the Tampere European Council (1999) called for establishment of joint investigative teams as a first step to combat traficking in drugs, human beings and terrorism. For instance, Germany and Austria instituted a convention for expanding cross-border cooperation for the countries of the Western Balkans, including Joint Investigative Teams. The formal legal bases for establishing JITs were Art.13 of the Convention on Mutual Legal Assistance (2000) as well as the Framework Decision from 2002. The Council was entitled to adopt a Recommendation on the Model Agreement establishing the JIT. Also, the Lisbon Treaty provides for a possibility, the European Parliament and Council to adopt regulations on the "the coordination, organisation and implementation of investigative and operational action carried out jointly with the Member States' competent authorities or in the context of joint investigative teams, where appropriate in liaison with Eurojust." Eurojust will participate in the work of Joint investigative teams in a support capacity. So far, the Joint Investigative Teams have provided substantial leverage in the fight against organized crime, terrorism, drug trafficking and counterfeiting the euro as well as an instrument for enhancing mutual cooperation in criminal matters between the Member States. This particular article will give an overview of the legal and operational framework of the JITs, the current shortcomings, problems, and future prospects of this instrument.

Keywords: investigative teams, Eurojust, legal assistance, criminal investigations.

INTRODUCTION

The Treaty of Amsterdam (1999) prescribed that one of the objectives of the Union would be to provide its citizens with high level of safety in the Area of Freedom, Security and Justice (AFSJ) by developing common action between the Member States in criminal matters. In this regard, the Treaty provides an initial legal basis for "joint teams" consisting of officers from police forces, judiciary, customs and other specialized services. The political ambition for the project to become operative was obvious from the fact the European Council in Tampere (1999), and later the Hague Programme, advocated the use of the Joint Investigative Teams for efficient combat of crimes that are executed or include perpetrators from two or more Member States. However, despite this great political ambition and despite the fact that this instrument has been much widely used for the past few years, the impression is that there is some reluctance in the police forces regarding the use of this instrument, since in most cases the JITs are bilateral. The aim of this particular article is to give an overview of the legal and operational framework of the JITs and to identify possible deficiencies.

LEGAL FRAMEWORK

Besides the Amsterdam Treaty which gave the initial (broad) legal basis for the establishment of JITs, another impetus toward establishing the Joint Investigative Teams was made in Tampere 1999, when the European Council called for immediate establishment of the Joint Investigative Teams, and stressed their importance in the combat against trafficking in drugs and human beings.[1]

1 Presidency Conclusions, Tampere European Council, 15-16 December 1999.

Consequently, in 2000 the Convention on Mutual Legal Assistance[2] was adopted, but faced serious delays in the ratification process due to the problems caused in several Member States regarding the interpretation of some of its provisions. The Convention promoted streamlined cooperation between police and judicial authorities of the Member States based on the existing legal instruments and practice and facilitating their application. That is to say, the MLA Convention upgraded the existing framework and filled some legal gaps. For instance, the establishment of JITs consisting of customs officers was already regulated by the Naples II Convention, and for selected criminal offences.

Because of the delay in the ratification process of the MLA Convention, several Member States proposed a Framework Decision in the Third Pillar to be adopted. This idea was fueled up by the attacks in New York and Washington of September 11, 2001. Namely, the extraordinary European Council meeting of 20 September 2001 called for setting up joint investigation teams by the Member States consisting of police officers and magistrates. Only days after, the Council of EU adopted the Framework Decision on the Joint Investigative Teams.[3] Nevertheless, the Framework Decision mostly reproduced the provisions of the MLA Convention regarding the JITs. But regarding the legal effect, the Framework Decision is more limited than the Convention. According to the Art. 34 (2) (b) TEU (1993), Framework decision cannot entail direct effect, unlike the Convention which if ratified can produce direct effect either in itself or through the implementing instrument. Consequently, the Framework decisions cannot be used as autonomous legal basis for establishment of the JITs nor their operation. This means that only if the countries participating in the formation of the JITs have created appropriate legal bases for their establishment in their respective national legislation, then this domestic instrument will be the legal basis for the establishment of the JITs. On the other hand, when the MLA Convention is used for the creation of JITs the situation is different because of the self-executing character of some of its provisions.[4]

According to Article 13 of 2000 MLA Convention[5] a group of investigators and other personnel, from two or more Member States, can be assembled together in close proximity to the investigation. The members of the JIT can be located outside their home country, but not necessarily. JITs can be considered in minor as well as more serious criminal cases. The creation of a JIT can be suggested by a Member State, as well as by Eurojust and Europol.

For instance, a Swedish-Finnish JIT can operate in Helsinki, while the Swedish member can undertake enquiries in Stockholm. Similarly, a team based in one —headquarter country could include a member representing all participating countries, whilst the other team members act in their home countries. A number of scenarios are possible and organisational issues of the JIT vary according to costs, availability of personnel, length of enquiry, nature of the investigation, judicial authority, etc.[6] According to the Decision, JITs can be established in particular when a Member State's inquiries into criminal offences require difficult and demanding investigations having links with other Member States, or a number of Member States are conducting investigations into criminal offences in which the circumstances of the case necessitate coordinated, concerted action in the Member States involved.[7]

In 2010 the Council adopted a Resolution on the Model Agreement for setting up Joint Investigative Teams.[8] The Agreement should contain the parties to the agreement, period of validity of the agreement, purpose of the creation of the JIT, JIT Members, leaders and participants, evidence, general conditions, internal evaluation and specific arrangements of the agreement.

The JIT provisions are used to establish a common judicial space that allows direct information sharing and, when such need arises, swift coordination.

2 COUNCIL ACT of 29 May 2000 establishing in accordance with Article 34 of the Treaty on European Union the Convention on Mutual Assistance in Criminal Matters between the Member States of the European Union, 12.7.2000, C 197/1.

3 Council Framework Decision 2002/475/ JHA, of 13 June 2012 on combating terrorism, OJ L164/3 of 22.06.2002.

4 Riijken, C., Joint Investigation Teams: Principles, practice and problems. Lessons Learnt from the first effort to establish a JIT, *Utrecht Law Review*, 2006, Vol.2, No.2, pp.105-6, available at: http://www.utrechtlawreview.org /index.php/ulr/article/viewFile/28/28 .

5 The Convention entered into force on 23 August 2005.

6 Joint Investigation Teams Manual, Council of the European Union, 15790/1/11, Brussels, 4 November, 2011, pp. 8-9.

7 Council Framework Decision *of 13 June 2002 on joint investigation teams, 2002/465/JHA*. OJ L 162, 20. 6.2002.

8 COUNCIL RESOLUTION of 26 February 2010 on a Model Agreement for setting up a Joint Investigation Team (JIT) (2010/C 70/01), Official Journal C70/1, 19.3.2010.

Later, the concept of JITs was upgraded by the upcoming Hague and Stockholm Programme. For instance, the Hague Programme promoted the use and participation of Member States' JITs by the Europol and Eurojust. In pursuing that goal, each Member State would designate a national JIT expert. Consequently, already in 2005 every Member State appointed a JIT expert and JIT expert network was established.

The Stockholm Programme of 2010 stressed the importance of the JITs in combating the most serious forms of crime with cross-border dimensions, not only organized crime and terrorism, but also widespread crime which impacts the daily lives of EU citizens. In that regard, the Programme encouraged the use of JITs as investigative tool to maximum extent possible in the appropriate cases.

In order to revive the concept of JITs and to increase their use Eurojust launched the JITs Funding Project from 2009 onwards. So far, two projects have been funded: the first one was initiated in the middle of 2009 and it ended on 31 December 2010. The second (entitled: Supporting the Greater Usage of JITs) was launched on 1 October 2010 and will run until 1 October 2013. Under the second project the costs of travel, accomodation, translation, interpretation as well as the technical equipment for the members of the JITs are reimbursed.[9]

According to the Eurojust Annual Report, in 2011 Eurojust continued its JIT Funding Project, based on the grant received from the European Commission under the programme Prevention of Fight against Crime 2007-2013. Europol and Eurojust should be informed for the creation of JITs and take part in the dealings with major cross border operations.[10] The project has become a valuable element in helping to ensure that financial constraints do not discourage the use of JITs in fighting organised crime groups.[11]

The product of the Hague Programme of 2004 was the establishment of a Network of National Experts on Joint Investigative Teams. The arrangements regarding who this person will be vary among the Member States (usually they're representatives of police or other law enforcement agency).

According to the Council of EU the tasks of the National Experts on JITs are:

1) Facilitation of the establishment of JITs via disseminating the existing legal framework;
2) Dissemination of information about the national legislation on JITs, the competent national authorities for the JITs etc. For instance, national experts could be asked to participate in the joint project started by Eurojust and Europol regarding the issuing of a manual containing a collection of those national legislations which implemented the Framework Decision on JITs;
3) Collection of the best practices and procedures for setting up and functioning of the JITs, as well as the detection of the problems and deficiencies in their functioning;
4) Maintaining close contact with the Europol and Eurojust, as well as the European Judicial Network in order to provide exchange of expertise of national legal framework and practices.[12]

However, the intention of the Council for the National Experts of JITs was that they should not form new formal network or overly bureaucratic structure, they should be able to meet colectively or in smaller groups, like on the meetings of the working groups in the Council or at Europol or Eurojust.[13] The first meeting of national JITs Experts was held in Eurojust premises in cooperation with Europol on 23 November, 2005.[14] Different agencies can be represented in the joint team police officers, customs officials, prosecutorial agencies, Anti-Fraud Office of the EU (OLAF), as well as other international organizations like Interpol.[15] The significance of the JIT for strengthening the internal security of EU was recognized by the Council in 2005, by

9 http://eurojust.europa.eu/Practitioners/Eurojust-Support-JITs/JITS-Funding/Pages/jits-funding-project.aspx, visited January 10, 2013.
10 Eurojust Annual Report 2011.
11 Ibid.
12 Council Decision 11037/05, Brussels, 8 July 2005.
13 Ibid.
14 Kapplinghaus, J., "Joint Investigation Teams: Basic Ideas, Relevant Legal Instruments and First Expiriences in Europe", available at: http://www.unafei.or.jp/english/pdf/RS_No73/No73_07VE_Kapplinghaus2.pdf, p.31.
15 Kaiser, W., and Starie, P., *Transnational European Union: Towards a Common Political Space*, London, Routledge, 2005, p.197.

the Decision on the exchange of information and cooperation concerning terrorist offences.[16] However, in most cases, Joint Investigative Teams are created for ordinary crime cases, such as drug offences and car thefts with cross-border character, and rarely the motive for the creation of JITs is a terrorist – related offence.[17]

The last meeting of national experts was held in The Hague in October 2012. The meeting was aimed at evaluating the JITs' role: during the operational phase its role is in providing assistance in overcoming the detected problems; at the end of the operation, the team provides an overview of the results achieved and lessons learnt for the future. Also, the JITs' role after the conclusion of court proceedings related to cases where it obtained evidence. The key role of the national expert in the evaluation of JITs was emphasized, either through the provision of support to the evaluators or the collection and forwarding of results to the JITs Network Secretariat.[18]

The Framework Decision and the Convention on Mutual Legal Assistance was implemented in various ways in different Member States. In some Member States *lex specialis* laws were adopted regarding JITs, while in other the provisions on the establishment and functioning of the JITs were inserted into the respective codes on criminal procedure (e.g. Slovenia). On the other hand, some of the Member States referred to the direct effect of the provisions of the MLA Convention and the Framework Decision into their domestic legal order. Some Member States verbatim transposed the provisions of these legal sources in national laws, while other adopted new rules (like Denmark, France, Latvia, Hungary, Austria, Finland, Sweden). The Codes of Criminal Procedure were amended as to contain provisions regarding JITs in Poland, Czech Republic, Bulgaria, Estonia, Latvia, Lithuania, Slovakia, Slovenia, France and Netherlands. Special laws were adopted in Finland, Greece, Ireland, Germany, Cyprus, Austria, Hungary, Luxembourg, Portugal, Romania, Spain, Sweden and the United Kingdom. Malta amended the Criminal Code, while Denmark issued explanatory Memorandum to the MLA Convention, and no special laws were adopted. Some Member States have not ratified or introduced specific national legal rules.[19]

Specifically, the Netherlands did not implement the Framework Decisions on JIT separately, but it did so with the Special Law on the implementation of the Convention of Mutual Legal Aid. A special section headed "International Joint Investigative Teams" was inserted in the Dutch Code of Criminal Procedure and the Law on Data Protection of Police Files was amended so as to provide the possibility to use temporary files for JIT purposes. Later, the Dutch Board of Procurators issued a guideline with additional rules on implementing JITs. In the United Kingdom the Framework Decision was implemented mostly by legally-non-binding circulars. The participation of Europol officials is regulated by the Home Office Circular of 1 October 2002. The Circular makes distinction between assistance by the Europol officials to the JITs and participation in the JITs. So far, the Circular doesn't give opportunity for full association with the JITs. Europol can still play important role in advising the JITs on the organized crime threats to two or more Member States and can add value to Member States.[20] In UK the establishment of the JIT seeks diplomatic negotiations and prior approval from the Home Office Judicial Cooperation Unit.[21] Belgium has not enacted a Special Law on the Framework Decision, but an Implementing Law on the MLA Convention, which entered into force in January 2005. Under the Law, the Europol officials can take part in the JIT teams only as experts, a role that may be prescribed for them in the agreement establishment of the JIT team. Europol officials lack operative powers, and can be present at certain investigative measures. The Belgian Federal Prosecutor shall inform Europol about any formation of a JIT between Belgium and any other one or more Member States.

16 OJ L 253 of 29 September 2005, p.22.
17 Wahl, T., "European Union as an Actor in the Fight Against Terrorism", Wade, M. and Maljevic, A., *A War on Terror?: The European Stance on a New Threat, Changing Laws and Human Rights Implications,* Springer, 2010, p.138.
18 http://eurojust.europa.eu/press/PressReleases/Pages/2012/2012-10-25.aspx.
19 Joint Investigation Teams Manual, op.cit, pp.18-21.
20 Home Office Circular 53/2002 and Home Office Circular 26/2004, http://www.homeoffice.gov.uk/about-us/corporate-publications-strategy/home-office-circulars/circulars-2004/026-2004./
21 Hurfield, C., and Hurfield, K., *Covert Investigation*, 3rd ed., Oxford University Press, 2012, p.157.

EUROPOL'S AND EUROJUST'S PARTICIPATION IN THE JOINT INVESTIGATIVE TEAMS

Both Europol and Eurojust can participate in the establishment and the functioning of the JITs. The participation of the Europol and Eurojust is not mandatory but is highly recommendable, since it can help in the overall success of the operation and its efficiency and operational capacity.[22] More detailed rules on their role in such case are to be found in the decisions of the Council of EU on establishment of Europol and Eurojust. Also, there is an agreement between the two bodies, according to which they can take part on invitation by one or more Member States in the negotiations for setting up of JITs. In this early phase, the two bodies could provide significant legal advice and expertise for the participating states. Even more, Eurojust and Europol being able to see the "greater picture" can identify possible investigations and thematic areas for setting up a JIT and prompt the Member States to initiate joint investigations in these areas. Namely, according to Art.7 of the Eurojust Decision, the Eurojust when acting as a College in relation to acts and crimes in relation to which Eurojust has competence can initiate setting up a JIT between certain Member States. When acting through its national experts, Eurojust can ask the national authorities to set up joint investigation team in keeping with the relevant cooperation instruments. Also, Eurojust national coordination networks should be set up to coordinate the work *inter alia* of the representatives of the Networks for Joint Investigative Teams.

Europol has more police-like support for the JITs:

1) providing an international picture, linking related cases and investigations;
2) identifying appropriate support, be it analytical, on the spot with technical and forensic expertise, or logistics, via the operational centre for the JIT;
3) helping with the exchange of information via the secure lines established with Member States and all operational cooperation partners, and
4) contributing to the drafting of the JIT agreement and arrangement and help with the evaluation and lessons learnt after a JIT has been closed.

Furthermore, Europol staff can assist in all activities and exchange information with all members of the joint investigation team. They shall not, however, take part in the taking of any coercive measures. Europol staff may liaise directly with members of a joint investigation team and provide members and seconded members of the joint investigation team, in accordance with this Decision, with information from any of the components of the information processing systems referred to in Article 10. In the event of such direct liaison, Europol shall at the same time inform the national units of the Member States represented in the team as well as those of the Member States which provided the information thereof.[23]

Under Art.7, Europol can ask Member States to initiate, conduct or coordinate investigations in specific cases, which shall give such requests due consideration. Before making such request, Europol shall inform Eurojust. However, the competent authorities of the Member State are free to decide not to accept the request made by Europol. In these cases, they shall inform Europol of their decision, which must be reasoned unless the reasons are related to essential national security interests or can jeopardise the success of investigations underway or the safety of individuals.[24]

In 2011, Europol participated in 17 joint investigation teams, and was actively involved in and supported several more JITs without a formal arrangement in place.[25] For instance, a JIT was established between Bulgaria, Spain, Eurojust and Europol (with help of the US Secret Service) to tackle euro counterfeiting. Here, Europol prepared several intelligence reports, facilitated the exchange of intelligence, and provided technical support by examining the premises of the print shop for counterfeiting the euro.

22 Klimek, L., "Joint Investigation Teams in the European Union", *Internal Security*, 1/2012, p.73.
23 Art.6., COUNCIL DECISION of 6 April 2009 establishing the European Police Office (Europol) (2009/371/JHA), L OJEU, 121/37, 15.5.2009.
24 Ibid.
25 Europol Review: General Report on the Europol Activities, Europol https:// www.europol. europa.eu /sites /default/ files/publications/europolreview2011.pdf.

Later, a meeting held at Eurojust led to the creation of a JIT between Belgium and France with the participation of Europol. French and Belgian JIT members detected the suspects in a VAT fraud and targeted a Belgian company trading in precious metals, with businesses in the United Kingdom, France and Spain. Later, under the auspices of Eurojust, an agreement was signed between Sweden, Slovakia and Germany, setting up a joint investigation team in a multilateral drug trafficking case to be carried out on Slovakian soil. Several Member States asked Europol's help in criminal investigations related to VAT fraud in the platinum trade. Europol's analytical findings showed clear links between the countries mentioned above. Europol participated in the joint investigation team.

JITS IN OPERATION

First steps towards establishing a JIT started in 2002 as a Dutch initiative which came to fruition in the beginning of the 2004. The European Police Chiefs Task Force (EPCTF) and Europol (Analytic Work File "Maritsa") were dealing with a case of trafficking in human beings from and through the (then non-EU-Member State) Bulgaria.

A second initiative to establish an operational JIT for fighting drug trafficking came in 2004 from Britain and the Netherlands. There was available information that substantial amount of drugs is being held in the Netherlands. In this line, the public prosecution services of both countries liaised with the national representatives of Eurojust of both countries. The request for assistance was made by the competent British authorities to their Dutch counterparts. This JIT was operational for three months until March 2005, and led to arrestment of several persons in the UK and the Netherlands, some of whom were convicted. In the Netherlands, a considerable amount of money was confiscated.[26] Under the Framework decision initially only three Joint Investigative Teams regarding investigations for drug trafficking and terrorism - one between France and the UK, and two between Spain and France were established.

In February 2007, France and Germany established a JIT on Turkish left-wing terrorism - consisted in fact by two teams, one in Paris and one in Berlin. A second JIT between France and Germany was established in later in 2007 between regional police services in Strasbourg and in Baden - Württemberg. This was a single JIT team.

Amongst the most successful JITs are those established between France and Spain which have had significant operational success. Their operations resulted in a sizable seizure of cocaine in September 2006, numerous arrests of suspected ETA members and the seizure of 350 kilos of explosives in an ETA safe house in Cahors in October 2007.

This cooperation led to severance of ETA terrorist activities, which are usually prepared in France and carried out in Spain. After the killing of the two Spanish members of the team, Spain announced establishment of a permanent joint team on ETA terrorism.[27]

More recent examples available from the Eurojust Reports, in 2009 seventeen JITs, in 2010 twenty, and in 2011 as many as thirty-three JITs were established, consisting of judges, prosecutors and police officers. The continuous rise in JITs established with Eurojust's assistance and participation shows that EU Member States are becoming more familiar with the instrument and use it in their operational work.[28]

During 2011, third states' participation was requested on 211 occasions. These include Switzerland, followed by Norway, Croatia, the USA, Turkey, Bosnia and Herzegovina, Serbia, Morocco, and Liechtenstein. Investigations concerned drug trafficking, swindling and fraud, money laundering, and crimes against life, limb or personal freedom. Eurojust's assistance was also requested in cases of corruption and cybercrime involving third states.[29] The team is set up in the Member State in which investigations are expected to be predominantly carried out.

26 Ibid. pp.108-109.
27 Block, L., *Joint Investigation Teams: The Panacea for Fighting Organised Crime? (*August 25, 2011), ECPR Annual Conference, August 2011, available at SSRN: http://ssrn.com/abstract=1981641. pp.23, 24.
28 Ibid.
29 Eurojust Annual Report 2011, http://www.eurojust.europa.eu/ doclibrary/corporate/ eurojust% 20Annual% 20Reports/Annual%20Report%202011/Annual-Report-2011-EN.pdf.

Priority crime types in which Eurojust was involved in the later years are: drug trafficking, THB, terrorism, fraud, corruption, money laundering, cybercrime and other activities. Besides concrete cases, Member States often require Eurojust's help regarding national legislation or procedures (so called legal topic case).

ADVANTAGES AND PROBLEMS IN THE FUNCTIONING OF THE JITS

So far, the functioning of the JITs produced many positive effects, as well as a number of deficiencies. According to Rijken, the establishment of the JITs can produce several benefits like: the fact that the operation is headed by one person; the fact that competent authorities in participating Member States can be directly asked by their seconded member in the JIT to undertake investigative measures, without a formal request; consequently the information from these investigative measures in the participating Member States can be directly used by the JIT; and the direct exchange of information.[30] Additionally, certain advantages can be seen in the possibility for the team members to be present upon searching premises, interviews, etc. in all jurisdictions, where they can help to overcome language barriers, etc.; on the spot coordination and informal exchange of expertise; building of mutual trust between experts from different jurisdictions, who cooperate and decide on the investigative and enforcement strategies; the possibility for the involvement of Europol and Eurojust for the support and assistance; the ability to provide sufficient funds, etc. Other advantages include familiarity with domestic judges, prosecutors or police officers' knowledge of the domestic procedures and substantive law; investigations carried out by the JITs are faster than usual, and they contribute to building networks for similar operations in future, thus reducing costs and damages, ensuring earlier and more focused apprehension the offenders and consequently faster convictions.

However, the legal basis for the establishment of JITs has so far proven to be problematic in several respects. This legal confusion arises from the existence of the two legal intruments (the MLA Convention and the Framework decision) with identical content, and, from another side, the fact that there are problems in the transposition of the one or in some cases of the two instruments in the national legislation of the Member States.[31] Still, in addition to these legal problems, there are other factual problems which vary from case to case.

The problems facing JITs are various. For instance, different legal systems can allocate investigative powers to different organs. In some Member States these are the magistrates, in some the public prosecutors and in some senior police officers. These can cause miscommunication between the Member States and confusion regarding the competent authorities.[32]

So far, for instance, the problem of the admisibility of evidence before the court in charge of criminal proceedings has aroused. It is possible that the gathering of evidence in one Member State, where the investigation was carried out, is lawfull and admissible in the courts of that Member State. But, under the relevant domestic law of the court where the criminal proceedings is held the same evidence can be inadmissible, so the work of the JIT in that regard can be useless. The problem of admissibility of evidence is especially evident between the British and the continental rules on evidence, since the British rules on admissibility are much stricter.[33]

Problems may also arise from different disclosure rules in organized crime cases because in some Member States police cannot share sensitive information intended only for internal use with colleagues from other Member States. On the other hand, in the prosecution stage, in some Member States like the UK the Public Immunity Act provides for a leeway for not disclosing some information sources and sensitive techniques. In this regard, the Netherlands has the most liberal statutory rules, since there all evidence obtained in all phases must be disclosed in the court proceedings.[34]

30 Rijken, C., "Joint Investigation Teams: principles, practice, and problems Lessons learnt from the first efforts to establish a JIT", Utrech Law Review, *http://www.utrechtlawreview.org/ Volume 2, Issue 2 (December) 2006,* p.102.
31 Ibid. p.112.
32 Block, L., op.cit., p.14.
33 Ibid.
34 Ibid.

Different evidentiary rules result in delays or non-execution of requests regarding disclosure of banking information for the suspects, hearing of witnesses by videoconference, admissibility of evidence, extradition of nationals, etc. However, the coordination meetings of national experts try to overcome these obstacles.

The close personal contacts, absence of linguistic barriers, and common interest in the particular criminal investigation remain imperative for the success of every newly established JIT.

Other problems arising from covering the costs for the persons included in the JITs. These costs include travel expenses, accomodation, logistics, technical equipment, interpretation costs. So, the participating Member States must first agree as to the proportion to which each of them will bear the costs. Problems arise from the lack of clarity regarding the use of coercive measures, different rules for compensation of damages caused by the members of the JITs, legal control, etc. Also, there are additional sources for funding the JITs, like the above mentioned instrument "Financial, administrative and logistic support to JITs with the establishment of the centre of expertise with a central contact point".

Another problem with the JITs is that they operate outside of the framework of control of national parliaments, because national governments tend to treat this cooperation as operational matter.[35]

Other problems include administrative barriers that have showed up so far. For instance, the direct sharing of information and evidence became a problem in a Belgian-Dutch JIT because of the Belgian regulations that prevented the Belgian magistrates to share the information with the Dutch Members of the JIT. Sometimes, the significant administrative burden goes with the participation in the JIT. For instance, German prosecutors found themselves overburdened with weekly reports and loss of discretionary power, so they were very unenthusiastic about taking participation in the JITs.[36]

CONCLUSION

As a new instrument at the EU level, the Joint Investigative Teams were considered to have added value in conducting investigations in two or more Member States. The instrument usually used for the establishment of the JITs is a bilateral or multilateral agreement (since the number of participating states is not limited) with a possibility of non-EU Member States to be included, as well other EU services or international organizations like Interpol. So the legal basis offers a large scale of flexibility. The key reason for establishing the JITs is usually the cross-border dimension of the criminal offences, i.e. the offence and its perpetrators have links in one or more Member States, which require concerted effort by the police services of those Member State. The gravity of the criminal offence is not decisive – so far the JITs were created for less serious forms of crime. In practice, their operation showed more or less the same deficiencies as traditional cross - border police cooperation. Different obstacles arose from the functioning of the JITs often as a result of the different legal solutions regarding, for instance, obtaining evidence, the use of evidence in the proceedings, exchange of information, etc. The expertise of Eurojust in these cases of different evidentiary rules in different Member States is of crucial importance, and in some cases Eurojust can even suggest that establishing a particular JIT is not appropriate. In practice, the JITs were mostly bilateral, and occasionally multilateral. In the more recent history of the JITs, a series of administrative/technical barriers emerged hampering cooperation and making the judicial, prosecutorial and police authorities reluctant to exercise this type of cooperation. However, the increased number of JITs in the past few years showed that, despite the initial reluctance in the first few years, the effects produced by the JITs during the last 8-9 years convinced the Member States in their usefulness and encouraged them to use this instrument on a larger scale. In this line, it is evident that EU instruments for financing of the JITs and the help of Europol and Eurojust had played an important role. However, further improvements are needed in order to eliminate the identified deficiencies regarding legal clarity of the operations carried out by the JIT members, responsibility for incurred damages, control, more precise rules on the admissibility of evidence and allocation of investigative powers, as well as the abolition of certain covert administrative practices in

35 Anderson, M. and Apap, J., *Striking a Balance between Freedom, Security and Justice in a Enlarged European Union*, Brussels, CEPS, 2002, p.8.

36 Block, L., op.cit., p.26.

the Member States which undermine the cooperation among their competent institutions. Despite these problems, and judging by the increased use of these instruments in recent years, one can say that the Member States will use the instrument of JITs even more in future in order to live up to the high political expectations set for the JITs by the European Council.

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DIGITIZED TOOLS IN A POLICE TRAINING AND EDUCATION FOR POLICE PREVENTION

Miriam Meteňková, PhD
Forensic Institute of Police Forces, Slovak Republic
Professor **Miroslav Rybář**, PhD
International Institute for Business and Law, Prague, Czech Republic

Abstract: Preparation for life and profession, as well as education is not possible without effective communication. Nowadays we can also find the idea of communication in policing, preventive activities and police training, very often it is associated with proximity. The basis for preventive police training and education is awareness of importance of police training and education and sharing information. Electronic forms of communications have enabled high level of interactivity, using effective methods and forms of communication and sharing information. In police, there is still an underaverage level of education used. Besides often presented "e-learning", there are other well known and commonly available tools. For instance e-mail and html creation are available, even outside of "classical" Moodle tool. In this paper, there are results of the research, which are presented by project implementation: "3/2004 Metódy výskumu a vývoja policajných činností".

Keywords: policing, preventive police programs, education, police training, preventive police service, electronic communication, e-learning.

INTRODUCTION

Education, as an instrument for transfer of information and at the same time the way of confirming this information, is a natural human need. History teaches us not only how it was, but also how it will be. Based on causality and similarity, we see the past and project it into the future, as an appropriate and successful way of solving problems. Transfer of past experience, is actually learning and training, in order to do things better. This is also clearly applicable to police activities, police training, and police education and even to the police science and "police theory".

Preparation for life and training for profession and education in all directions is not possible without effective communication. The level of effectiveness does vary and is frequently associated with specific, sometimes immediate result. Measurability is often based on the subjectivity of perception of the result. The concept of communication in the current police training is still seen as direct personal contact, meaning face-to-face. Eclectic perception of face-to-face actually reflects using the technology of the past – meaning without any carrier besides air. Such learning is disguised as "humane" and based on human relations-oriented forms of communication and relationship. But, at least in terms of effectiveness and efficiency, and also in terms of choice of target, i.e. police officer, pupil, student, also in terms of time, space and interactivity and the possibility of direct involvement in police training, there are better alternatives available. Criticism, that this approach (face-to-face) is usually based on ""voluntaribility" of a person, who wants to get knowledge, new skills and abilities, is at least strange, if we are talking about humanity.

Mainly in the field of electronic information resources, e-learning and Moodle, a high level of motivation, one's own volition, interactivity and student's engagement is required. On the other hand, these tools provide very detailed and mostly automated "control mechanism", so head - teacher, does not have to spend time in a control process, but has always these tools available. Not to mention, the advantages of self-controlling the content.[1]

The basis of education and training is in being informed and sharing information. Current electronic communication affords us the opportunity to communicate effectively and share informa-

1 METEŇKO, J., Elektronické formy komunikácie ako nástroj policajného vzdelávania. In.: Ed. Jašek, R., *Internet, bezpečnost a konkurencesch. organizací: řízení procesů a využití moderních terminál. technologií : mezinárodní konference*, : XII. ročník mezinárodní konference : *17.-18. března, Zlín*. Univerzita T. Bati, Zlín 2010, CD anotácii a príspevkov. s. 7 , www.utb.cz, ISBN 978-83-61645-16-0

tion on a high level of interactivity. However, this is not used enough during the police training. Besides often presented "e-learning", there are other well known and commonly available tools (for instance e-mail and html creation that are available even outside of "classical" Moodle tool).

ANALYSIS OF USAGE OF ELECTRONIC FORMS DURING CRIMINALISTIC POLICE TRAINING IN SLOVAK REPUBLIC

Our first-hand experience during starting these procedures - from 2004, are mainly connected to the problem of deficiency of hourly capacity of subsidies in some subjects of bachelor, but mostly masters form of study. In the master study we can mainly speak about the content and scope of subjects that follow a basic understanding of criminalistic, forensic science, and police science.

This situation created necessary space for implementation of new, in terms of time-efficiency more efficient forms of distribution of knowledge and forms of testing and student-teacher communication. We have started with defining a flow of information and communication in teacher-student relation, through menu on free websites, consisting of classic html technology and feedback via e-mail.[2] Communication back from students was established, except in special cases, through the group leader, since there were a large number of reports/feedbacks from over 100 students, who were divided in several groups, according to their specialization.

Control mechanisms have been set based on motivation of a time limited and exam prioritised and oriented forms of knowledge and skills verification. Mainly a seminar work, control test and traditionaly performed final examination was used. The traditionally performed final examination was about one-third of overall evaluation compared to the volume of ongoing evaluation throught the whole year. Students could therefore find all basic information centralized on one web site, but had to perform for them, which was an unusual activity until now. The first activity was a creation of reliable e-mail account, in addition to assurance of an internet access. Even Police Academy provides direct free access to the internet at the entrance to the building, but it seems like many students "do not know" about this possibility. Knowing this, there was a strangely significant problem with the access to the internet and a reliable internet e-mail accounts.

Another significant change in the activity of the study was to input the content of seminar work by mutual agreement. In the first round, broader topics were given, as a motivation for each student. Students had to choose a topic in very deep detail, often after repeated "discussion" via website and e-mail. A degree of the agreement on topic was indicated by different colours in a table. Topics were defined very narrowly and specifically and most of the students wanted to choose commonly learned approach, "where can I find resources", "can you recommend any resources?", "somewhere, this topic had to be written by someone already – have to find it". Therefore, the same problems "about the adequacy" of this tasks, systematically appeared and were discussed. The students were forced to study at least from 5-6 sources, often foreign and very often attempted to break away from given layout, into the much wider environment of basic themes. After 3 to 4 not accepted seminar works, they have finaly become accustomed to the given difficulty.

The final test was conducted on a predefined date and time. A common sheet with given task and placeholders for answers was distributed and redistributed by e-mail. Efficiency was in the first years on relatively high level, beginning at about 60% and gradually increasing to about 70-90%. The aim was to achieve a level of cooperation among students - criminalistic is from our point of view also a practical team-work and many students were not trained enough to perform in cooperation as a group. The content of the test questions was formulated based on the content of seminar works, prepared by the students themselves in the relevant year. So, the aim was a redistribution of new knowledge from students themselves, in contradiction to the classical learning in undergraduate (Bc) study.

2 METEŇKO, J., Elektronické formy komunikácie ako nástroj policajného vzdelávania. In.: Ed. Jašek, R., *Internet, bezpečnost a konkurencesch. organizací: řízení procesů a využití moderních terminál. technologií : mezinárodní konference,* : XII. ročník mezinárodní konference : *17.-18. března, Zlín.* Univerzita T. Bati, Zlín 2010, CD anotácii a príspevkov. s. 7 , www.utb.cz, ISBN 978-83-61645-16-0

Since the first two years in operation of such a mechanism for external students proved to be success, the system was applied also for full-time students, where it would help to establish higher variability of acquired information. This is exactly in the spirit of fellow collegue Bauer [3] "Education in e-learning is dialogue and self-reflection for the student and the teacher." Exactly this result was achieved by implementation of these simple forms of electronic communication in education.

We have evaluated this development after three years as successful and based on this knowledge, we could introduce this practice to other objects of the study. After innovating the study, this extend touched also the subject of Criminalistics 2. Although not entirely, but to the needs adequately. Unfortunately in the master level, the criminalistics courses were replaced with a repetition of law courses, or the time fund from criminalistics was transfered to other forensic courses.

Thanks to the research projects and grant support, we could get the server support for Moodle starting from 2008. By 2010, the criminalistics department managed the whole system combined with:

- open web sites,
- direct e-mail communication, and
- Moodle.

For the need of additional and specialized courses and courses outside the police academy teaching was defined, in the form based on a closed basis. Of course, we also provide open and semi-open courses based on Moodle.

Perspective is to particularly widespread the use of these tools also on other colleagues within the department and school. Unfortunately, the official technical support is already terminated, because of the ending of financing for project "3/2004 Methods of research and development activities of the police", which is completed in 2013. Currently, practically all the activities are provided non-systemically, only as an individual activity based on motivation of some teachers.

THE CONCEPT OF PREVENTIVE POLICE ACTIVITIES AND EDUCATIONAL ACTIVITIES THROUGH E-LEARNING

One of the possible usages of electronic forms of communication in the area of parallel increasing of knowledge and awareness for different distributed groups is in the area of preventive police activities.[4]

Actuall support for preventists and others, including objects of prevention[5] is relatively marginalized.[6]

The organizational structure of preventive actions in Slovakia is implemented as ordinary police work and its formal structure is part of the police force on all managing levels. This is true in various forms, also elsewhere in the world.[7]

Modernizing the forms of communication and distribution formats of information currently requires, particularly to populations with generational differentiation, newly designed

3 BAUEROVÁ, D., Digitální dialog v globální vzdělávací síti, In Cimbálniková, L., Prudká, S. *E-Work a E-Learning* : *sborník příspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006.* 1. vydání . Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

4 SVATOŠ, R. *Základy kriminologie a prevence kriminality*. Vysoká škola Evropských a regionálních studií, s.r.o., Žižkova 6, České Budějovice, university textbook, 2009, 118 pp, ISBN 978-80-86708-81-2

5 SVATOŠ, R. *Kriminologie ve světle nového trestního zákonníku*. Vysoká škola Evropských a regionálních studií, s.r.o., Žižkova 6, České Budějovice, 2010, 174 s., ISBN 978-80-86708-21-8

6 METEŇKOVÁ, M., METEŇKO, J., Jednostrannosť prevencie v policajných činnostiach v SR, In. Meteňko, J. *Policajné vedy a policajné činnosti 2009*, Zborník z medzinárodnej vedeckej konferencie konanej dňa 11. a 12. novembra 2009 na Akadémii Policajného zboru v Bratislave. Akadémia PZ 2010, 229 pp. ISBN 978-80-8054-489-8. p. 55-61

7 VARADI-CSEMA, E., The Role of the Hungarian Police in the New Community-based Crime Prevention System8 In., Ed., Meteňko, J., *Complementary research results from Middle Europe researches area cooperated on EU SEC II. , Proceedings of the international scientific conference held on 29 and 30 September 2010 at Academy of Police Forces in Bratislava* Zborník výskumov koordinovaných v medzinárodnej vedeckej úlohe EU SEC II, 1. vyd., Akadémia PZ v Bratislave, Bratislava 2011, p. 141, ISBN 978-80-8054-506-2, EAN 9788080545062. ss. 141. s. 83 – 89

projects in the field of prevention. Therefore, also education in this field needs to be upgraded. We believe, that e-learning[8] as electronical learning, is very appropriate form of education for a wide-ranging report of objects [9].

It is a relatively new form of education, that does not want to replace the traditional forms of education, but rather offers an extension to currently used methods and forms, but also already received training and transfer of information of all kinds, including prevention. It is beneficial for all the people who have access to the internet. In the police structures, this development probably began by preparation for teaching "Criminalistics" at the Secondary Police School in Košice and the teaching of the "Theory criminalistics and activities of expertise" on the Police Academy in Bratislava. The beginning of testing of static forms was started by Dr. Zuščin, currently head of study group for Criminalistic in Košice.[10]

For similar reasons, although of substantially different quality by scope and content, internet and websites www.policescience.estranky.sk, www.kriminalistika.estranky.sk www.kriminalistika.sk have been started to be used to implement dynamic forms, also at the Department of Criminalistics and Forensic Sciences [11] on the Police Academy in Bratislava. In particular, according to the content focus on related areas of police science, criminalistics, criminology, crime prevention, but also the presentation of research results and their variety, is now the purpose of these pages. Linking to scientific research effects allows to an average user also to get an overview of the content, forms and outcomes from research, helping students at orientation and motivation and interested parties outside of the immediate radius of influence, to present their interest. Next forms of communication are newsgroups, directly linked to the webpage www.kriminalistika.sk, or new discussion groups on www.linkedin.com/groups? focused mainly on experts in the relevant areas - police science, criminology and experts from other related sciences.

E-learning projects implemented already for a long time on primary and secondary schools in Slovakia, can serve as a compact example.[12] They are often made on the basis of open source software Moodle.[13] The same software is used for the research project "Methods and procedures of work on crime scene - the Slovak part of the project", which is distributed since 2010 on the website www.kriminalistika.sk/moodle.[14]

Similar methods and tools can be used also in other areas of education, for example in connection to the mentioned example in preventive police activities, a possibility opens in criminology in conjunction with police sciences as mentiond on the web sites above.[15]

Another area of application is the introduction of remote forms of communication and education for specialists - preventists, but also for children and students of primary and secondary schools, in relation to which the most effective prevention activities are taking place in police activities in the Slovak Republic at present time.[16]

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8 http://elearning.gphmi.sk/index.php?clanok=coje. 15. 9. 2006, 14.00 h. 1 s.

9 BAUEROVÁ, D., Digitální dialog v globální vzdělávací síti, In Cimbálniková, L., Prudká, S. *E-Work a E-Learning* : *sborník příspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006*. 1. vydání . Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

10 ZUŠČIN, V. Materiálne prostriedky vyučovacieho procesu predmetu kriminalistika na SOŠ PZ. Dizertačná práca. Bratislava : A PZ, 2006. 123 s. + prílohy.

11 KLOKNEROVÁ, M., METEŇKO, J. Využitie e-learningu pri prevencii kriminality mládeže v policajných činnostiach. In Cimbálniková, L., Prudká, S. *E-Work a E-Learning* : *sborník příspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006*. 1. vydání . Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

12 http://elearning.gphmi.sk/index.php?clanok=coje. 15. 9. 2006, 14.00 h. 1 s.

13 http://moodle.org/. 15. 9. 2006, 17.30 h. 1 s.

14 METEŇKO, J., *Metódy a postupy práce na mieste činu - slovenská časť projektu : Projekt výskumnej úlohy.* / Rieš. výsk. úl. Jozef Meteňko. - 1. vyd. - Bratislava: Akadémia PZ, 2008. výsk. 139.

15 KLOKNEROVÁ, M., METEŇKO, J., Prevencia v policajných činnostiach. In., Meteňko, J., Bačíková, I., Policajné vedy a policajné činnosti 2008, Zborník z medzinárodnej vedeckej konferencie konanej dňa 11. a 12. novembra 2008 na Akadémii Policajného zboru v Bratislave, 1. vyd., Akadémia PZ v Bratislave, Bratislava 2009, s. 273, ISBN 978-80-8054-470-6. ss. 52-66.

16 KLOKNEROVÁ, M., METEŇKO, J. Využitie e-learningu pri prevencii kriminality mládeže v policajných činnostiach. In Cimbálniková, L., Prudká, S. *E-Work a E-Learning* : *sborník příspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006*. 1. vydání . Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

For similar reasons, but in changed form, e-learning project can also serve for the actual objects of police preventive activity, [17] meaning for children and young people, teachers in targeted schools and project staff dedicated to the prevention mainly from non-governmental organizations, which often prefere humanity-oriented communication face-to-face. Overall, this should be the case for three categories of people in terms of scope and content of their professional activity:[18]

- Police officers - preventivist. A specific group of police force who realise their preventive police acitivities every day and systematically in terms of professional orientation. Usually younger, but already partially experienced policemen, assigned to all districts and regions of the Slovak Republic. At the level of the Presidium of the Police forces (Headquarter) a separate workplace is formed - Prevention Division Office of the police president, this covers virtually all prevention activities for Police, particularly in terms of organizational and methodical activities. The youth crime prevention is the most important part of their activities. These policemen usually guarantee, organize, and are responsible for most preventive and educational projects.
- Police officers - teenagers. The decisive point in the Slovak Republic in controlling juvenile crime is to have criminal police officers – "youngsters", who are entirely responsible in this area. Due to organizational changes and the related "thickening" of police activities and responsibilities of the police executive and management positions, new changes were introduced in this area, which in our opinion were not positive. If there was criticism in the past, concerning these police roles in terms of their content and scope of operations, changes in work organization and in the internal standards led to continued displacement of "youngsters" activities in favor of crime control in the field of extremism. At the level of districts and regions in Slovakia, there were special dedicated officers, who were directly responsible for the crimes committed by the youth and for crimes against the youth. The word "youngsters" became popular in police jargon for officers in this position. "The youngsters" knowledge of youth crime was much better and more knowledgeable in area of helping young victims and offenders. They had direct contacts with supportive and non-governmental organizations, good relations with schools and state social welfare organizations. However, they were constantly burdened with other tasks in connection with the so-called "predominant" crime and were not able to fulfill their obligations under their original purpose. Changes related to join obligations in the area of "youth", with the area of "extremism" (trend wave of extremism control), have led these officers "youngsters" to become more and more involved in areas other than their original purpose. Although the numbers of police officers in this area are seemingly rising, there is also a rising disharmony in terms of real content of work in the "youth" area and continuous destruction of original purpose of these forces.
- Police officers of first contact. These officers are performing their work at the most basic local police departments. These are the first police officers in most contacts with citizens. This is the main reason, why they need to be prepared for preventive and educational activities, especially to capture and appropriately process first signals on criminal threats, but also to execute crime prevention within their territory. In the subject of our project – e-learning approach to education - it is all about the first contact with children and youth.

With this concept, we came in defense of the research project, which was implemented in 2003-2008 and from which a part of this study takes information. [19]

17 METEŇKOVÁ, M., METEŇKO, J., Theory of preventive police activities necessary for preventive security checks at major events, (Teoria preventívnych policajných činností potrebných pre preveciu bezpečnosti významných udalostí), In., Ed., Meteňko, J., *Complementary research results from Middle Europe researches area cooperated on EU SEC II. , Proceedings of the international scientific conference held on 29 and 30 September 2010 at Academy of Police Forces in Bratislava*. Zborník výskumov koordinovaných v medzinárodnej vedeckej úlohe EU SEC II, 1. vyd., Akadémia PZ v Bratislave, Bratislava 2011, p. 141, ISBN 978-80-8054-506-2, EAN 9788080545062. ss. 141. s. 47 – 55

18 KLOKNEROVÁ, M., METEŇKO, J. Využitie e-learningu pri prevencii kriminality mládeže v policajných činnostiach. In Cimbálniková, L., Prudká, S. *E-Work a E-Learning : sborník příspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006*. 1. vydání . Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

19 METEŇKO, J., KLOKNEROVÁ, M., KLIMENT, A. *Prevencia kriminality mládeže v policajných činnostiach 2002-2005. Projekt výskumu a záverečná správa*. Bratislava : Akadémia PZ, 2006. Výsk. 115. 124 s.

From our current point of view, the e-learning is a new form of education that offers many benefits to those, who have access to the internet, or at least to the computer. It can be said that such a possibility now exists for virtually every school and every police workplace in Slovakia and thus technically nothing prevents to realize similar goals.

E-learning means first of all:

- Saving time - it is learning anytime and anywhere, thus from home and after work/non-school time;
- Cost savings - no need to travel for education;
- Flexibility - individual approach (you can ask the contractor what was not understood) your own pace of learning;
- Interactivity - reciprocal action and multivariant function between study materials and student - entered texts are highly variable and diverse, as they contain multimedia components (sound, image, animation, etc.);[20]
- Feedback and continuous evaluation – it is a new dimension of training and educational improvement effect; feedback allows to test ourselves and gives immediate survey of your level of knowledge; the distribution of results to administrator of a particular period of time or land distribution, or educational project and its reverse reaction/evaluation;
- Hyperlinks - links to other useful information suitable for education without complex search and provision of adequate resources;
- Access for anyone interested - able to receive the same education and educational project for the same project for differently qualified candidates, or for other reasons handicapped students who cannot attend school, but have the necessary computer equipment. Specific qualifications for participation variant can be changed by administrator or territorially responsible officer.[21]

Our e-learning concept[22] is according to the proposed project for the prevention of youth crime in police activities based on the classic structure of e-learning, using portals managed by the Police Force. Due to indicated categorization of e-learning objects, it is necessary to divide also the responsibility, quality and quantity of the educational process, which will act on them:

- Nationwide projects realised through the central portal and managed directly from the prevention workplace by Presidium of the Police Force;
- Local projects managed by preventivists in the territory from the portals managed by each district headquarters of the Police Force. In case the project level would reach a localisation on one school only, the portal would be managed by the network administrator of this school;
- In consideration of the scope and content of education and training activities for the needs at the kindergartens level, we seem to be sufficiently efficient to use one or two multimedial CDs or DVDs that would include interactive programs in a multimedia form that would adequately meet the needs of this category of prevention objects;[23]
- Preventists education should be provided on the portal of Police Academy in Bratislava;
- Education of operational staff – criminal police officers – "youngsters" should be provided on the portal of the Secondary Police School Devínska Nová Ves, which focuses on the so-called "Education for Officers", that means after the basic police training.

20 ZUŠČIN, V. Materiálne prostriedky vyučovacieho procesu predmetu kriminalistika na SOŠ PZ. Dizertačná práca. Bratislava : A PZ, 2006. 123 s. + prílohy alebo prostredníctvom Internetu a Intranetu: KLOKNEROVÁ, M., METEŇKO, J. Využitie e-learningu pri prevencii kriminality mládeže v policajných činnostiach. In Cimbálniková, L., Prudká, S. *E-Work a E-Learning* : *sborník príspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006*. 1. vydání. Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

21 METEŇKO, J., KLOKNEROVÁ, M. ICT a príprava kriminalistov. *Sborník príspevku z odborných konferencí AEDUCA Olomouc 2007 konaného v dnech 22. až 23. 11. 2007*. 1. vydání. Olomouc : Univerzita Palackého v Olomouci, 2008. CD. 12 s.

22 KLOKNEROVÁ, M., METEŇKO, J. Využitie e-learningu pri prevencii kriminality mládeže v policajných činnostiach. In Cimbálniková, L., Prudká, S. *E-Work a E-Learning* : *sborník príspevku z odborných konferencí AEDUCA Olomouc 2006 konaného v dnech 23. až 24. 11. 2006*. 1. vydání . Olomouc : Univerzita Palackého v Olomouci, 2007. 7 s. CD. ISBN 978-80-244-1729-5.

23 ZUŠČIN, V. Materiálne prostriedky vyučovacieho procesu predmetu kriminalistika na SOŠ PZ. Dizertačná práca. Bratislava : A PZ, 2006, 123 s. + prílohy.

- The first contact police officers would be trained from the portals of the Secondary School in Pezinok and Secondary School in Košice.

As basic software, open source Moodle software was prepared to be used. The basic scheme of the e-learning project is based on the following structure:

- Multimedia CD/DVD for kindergarten children - the content and form of the presentation is based on the project "Safety and traffic rules" implemented in selected Bratislava kindergartens - Bratislava IV and V. The content is enhanced with behaviors of children in the evenings and in time without adult supervision.
- Cycles for elementary school (schoolchild) - will be divided into at least two levels (class 1st-4th, 5th-8th). They are designed according to the contents of the most successful nation-wide and local projects, such as a national project "Behave normally", or "We know that" as a local "Safe for school". Here, it is partly necessary to use DVDs, too.
- Cycles for high school students - designed on the basis of the project "Crime Prevention" with a focus on the most serious types of crime in the youth and on the basic orientation in criminal law.
- Cycles for the first contact police officers - after graduation on the Secondary police school and taking the position on the District Department, two-week course of 80 hours, focusing on police behavior preventive effects, by the contact with citizens in the workplace and beyond, as well as outside of working hours.
- Cycles for operational police personnel "youngsters" - after graduation from the Secondary school with specialising "officers' education" and taking the position at the District Police Headquarters, two-week course of 80 hours, focusing on preventive actions and activities of police officer at the service of criminal police department responsible for youth crime.
- Cycles for preventists - after taking the position at the District and Regional Police Headquarter, six month course with weekly cycle focusing on preventive actions taking 120 hours. Content should be primary focused on search and detection of local and national crime prevention needs, techniques and development of prevention projects focusing on different population groups and different types of prevention, building relationships for specific communities, which manifests itself most significant need for preventive actions and ways to obtain subvention and sponsorship for the purpose of creating and implementing prevention projects.

Since the crime prevention is an activity that is very diverse, it is appropriate to use just e-elarning in the context of its implementation, as well as its design of projects. E-learning also provides qualities that enable the most effective use of the educational, learning and remembering process. These are the primary benefits which predetermine the e-learning with the multimedia and hypermedia effect, as a very effective prevention tool.

This tool, either by conjunction with software Moodle, or not, is well suited for versatile influence on the education especially by problem children and youth.

CONCLUSION

This study is dedicated to analyse the status (state/situation) and the possibilities to use digitalized, mostly internet forms of education in the field of criminology, police activities and crime prevention activities and other objectionale actions by police. As a demonstration of the possibility and need of preventive action as a relatively self-standing police activity, but especially the possibility of improving the training of specialists, which is often perceived as a cross-service (sectional), serves youth crime prevention in police activities. Factual data are processed by temporal examination of realisation of preventive activities in police activities. Monothematic empirical examination was conducted as part of already completed scientific research project "Prevention of youth crime in police activities" in order to identify preventive and educational activities in certain services of the police force and in the theoretical line in police activities in general.[24]

24 METEŇKO, J., KLOKNEROVÁ, M., KLIMENT, A. *Prevencia kriminality mládeže v policajných činnostiach 2002-2005. Projekt výskumu a záverečná správa*. Bratislava : Akadémia PZ, 2006. Výsk. 115. 124 s.

An analysis of the knowledge and experience of police officers and preventists working in the police force and the theoretical justification for the application of preventive actions according to the latest knowledge of police science is a part of this study.[25]

From the results, there are interactivity and benefits of e-learning tools, educational aspect and the use of knowledge to work with troubled communities, particularly emphasized in the article. The results of the research are particularly useful in teaching at police schools, others, notably universities, which address to social field related to youth and other specific communities, directly in police activities, as well as in its management. The results can be applied in improving current programs and by the preparation and realisation of new prevention projects. We see the usability also in the relocation of police activities and even towards police services, but especially in decision-making process of superior police officers. It could also be a motive for leadership of the Ministry of Interior, with the goal to meet the requirements for higher effectiveness and approach the service of police activities.

In the second part of the study, there is a brief concept of project development towards the use of internet and e-learning for selected police activities.

The empirical examination results of these projects and researches, should serve mainly to optimize the content management of police activity in the area of youth crime prevention. As shown in the theoretical analysis and also confirmed by the empirical investigation, the actions related to preventive activities in the Police force have now much higher preferences than in the past, although it does not attain the state/status as other police actions. The results of the researches should not only highlight the importance of prevention in the system of police activities, but due to problems with the police officers burden, to point out the need for a coordinated distribution of preventive and educational tasks to non-governmental and other organizations. This transfer should be continuously coordinated by the police and professionals who are familiar with the dark side and the negative results of education and training of the problem children and youth.

It would be appropriate to apply them to training programs in the lower levels of police schools and lifelong learning programs for police officers. They could be beneficial to improve the content of courses oriented on preparation and further education/training of preventists and other police officers in the application of preventive and educational projects. This possibility applies even to other security forces and services in Slovakia at about the same scope according to the current legislation of their tasks.

For the police officers - preventists who organize preventive activities, this could serve as a guide to implement those ideas, which haven't been realized in a particular region, or as a model to search and to use partners by the realisation of new preventive activities.

Further possible use of the results in the police activities:

- By planning, coordinating and realisation of preventive activities by preventists;
- To redefine prevention in relation to the repression of the police activities;
- By change and building of a new concept of police activities and relocation of police services, with a focus on openness and wider public engagement;
- In the area of preparation non-police professionals to work with communities and their preventive effect in police activities;
- In developing preventive and educational projects and other prevention activities.

We believe that it could be useful to help change the public opinion on the content of the police tasks in the implementation of prevention. We also hope that the importance of the crime prevention activities could get more awareness by every police officer. In particular, a complex understanding of the unity of crime control, linking education, prevention and repression may lead to the desired results and the satisfaction of citizens.

This study originated as a research project output 3/2004 Metódy výskumu a vývoja policajných činností.

25 METEŇKO, J., Policajné vedy a policajné činnosti, výskum a vývoj metód. In., Meteňko, J., Bačíková, I., *Policajné vedy a policajné činnosti , zborník z medzinárodnej konferencie konanej dňa 14. novembra 2007*. 1. vyd. Bratislava, Akadémia PZ 2008, 108 s. ISBN 978-80-8054-449-2, EAN 9788080544492. s. 37-42.

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THE INTERNAL CONTROL MECHANISMS OF THE POLICE IN MACEDONIA

Assistant Professor **Avziu Kebir**, PhD
Ministry of Internal Affairs of Republic of Macedonia
Teaching Assistant **Sevilj Muaremoska**, MSc
Faculty for Detectives and Security, FON University, Skopje, Republic of Macedonia

Abstract: Today, for all democratic countries, the idea for the police to control their work alone, without the possibility of external control, is absolutely unacceptable. The Republic of Macedonia is one of the few countries in Europe that has not yet established independent external mechanisms, for which it was criticized several times by the European Court of Human Rights, as well as by non-governmental organizations for the protection of human rights.

The absence of external control most certainly allows for the police to act arbitrarily in specific cases, which can seriously harm the human rights and bring the legal safety of the citizens into question.

In this paper, we will elaborate in detail the organization and functioning of the existing mechanisms for police control in the Republic of Macedonia. We will also suggest several possible models for establishing mechanisms of external control of the police, according to the manner used by modern democratic societies in regulating this problematic issue. In this context, we will also analyze the international standards that practically make the establishing of effective police control mechanisms an obligation.

Keywords: Police control mechanisms, external control, and international standards for external control.

INTRODUCTION

Macedonia is a democratic country where every individual has a stock rights that are guaranteed by the Constitution and law adopted by the assembly, while the task of the police is to apply the law equally to all citizens. The Constitution guarantees all citizens the right to submit a complaint if they feel that their rights have been threatened. Although the Constitution of the Republic, does not explicitly mention the interior ministry and police in any of its provisions, they are only tentatively referred to, as much of the constitutional subject matter - approximately one-third - is dedicated to the rights of citizens, which are directly or indirectly related to policing. Indeed, the police are placed in the center of the state and they constitute one of the most important and most visible institutions in society. According to the constitutional and legal regulations, the police should ensure the normal operation of the whole society and constantly fight crime, but at the same time they are obliged to protect human rights effectively. In practice, such rights are often threatened by the police as a body that is supposed to protect the same rights. Today we are witnessing the growing concern for establishing the rule of law or the legal country in which the maximum efforts will be made to protect and respect human rights and freedoms, particularly in the pre-trial proceedings. And indeed, when a person encounters police officers, there is no doubt that there is potential danger that his rights and freedoms may be threatened. But even if there is no such danger, yet there is a feeling of discontent, fear, excitement, etc.

The police procedures are, in their nature, the most controversial of all criminal proceedings, because the practice shows that it is the most critical period, which can easily threaten human dignity. No reasonable person would suspect and think that Marx can be physically tortured by the judge, but everyone will suspect a police officer, during the preliminary investigation, which takes place away from the public eye and where the officer is a dominant figure. So, any irresponsible behavior of the police may result in the infliction of great suffering and harm the citizens. The practice in many countries has obviously confirmed that the police, when not under strict and effective control,

can become a dangerous weapon in the hands of irresponsible officials and a catalyst of riots in the society. Because police actions today represent the largest barometer in terms of how high the level of democracy in a country can be and how much the democratic principles function, the question of their control is in the center of attention of all democratic states.

We live in a time when the attitudes towards the police and the law in general are changing radically. Like never before, we are making efforts to incorporate the basic mechanisms for the control of the police, especially when they apply force. Thus, the protection of human rights has become a favorite topic, as at global and regional level. In this regard, a set of rules and regulations (laws, regulations, codes, declarations) were adopted which generally require police officers to be honest and have a good attitude towards the citizens, in particular they are asked not to apply undue means of coercion. But it has been shown that only legal and moral norms are not a sufficient guarantee that the police will not really exceed official authority, using more force than is necessarily needed, and with this is difficult to violate the human rights. The practice also shows that only the officer staff and the institutions responsible for the fight against crime, such as the public prosecution and the judiciary, are not a sufficient guarantee that will effectively protect human rights and that will reveal the crime in the police force. The Public Prosecutor and the Ombudsman, like the ones we have in Macedonia, do not have sufficient capacity to detect this type of crime, given that the police constitute a separate closed system, which is difficult to penetrate from the outside. So many crimes committed by the police remain forever in the dark figure, due to the absence of other mechanisms specialized for detecting this crime.

Therefore, democratic societies have long been preoccupied with how the police to install other protective mechanisms, which will form a filter through which the passing will be hardly, and will also mean greater safety for citizens, that the legal monopoly of force, will be kept under strict monitoring. This mechanism will be activated whenever the police would step into the forbidden zone, and that human rights. Today prevails that every government service that implements the law, must constantly be controlled, whether its conduct was lawful and proper. Assumption for successful functioning and proper treatment is to be under constant supervision or control. The need to control the police, for the first time is provided in the Code of Conduct for persons responsible for the application of the law by the UN. (1977) As a result of these efforts, the police formed special services whose primary function would be the control of the performance of its function in the society. These services are called internal control and somewhere as a service for professional standards and for the first time as special services occurred at the end of 80 years, with the task to reveal corruption in the police force. Later on it received another very important function, and that is the protection of human rights. Of course one of the most difficult questions is how to build most effective strategy for responsibility of police, this is central issue and universal problem of any democratic society, which can not be solved overnight by filling finished forms. Because of that the Republic of Macedonia has been several times highly ranked by various organizations, in stark list of states with the most corruption. In every police in the world there are abuses, corruption and unethical working practices, they are the reasons why in every police there must exist and internal control, which will have authority and capacity to successfully fight against all forms of crime in their own ranks. Control is imminent because if the police are corrupted, freedom and life are not guaranteed, in such a system the citizen may be detained and released at the desire of some powerful man who pays the police and the government. Such a relationship can bring freedom to deprive innocent people while the criminals sit out. That is because the corrupt police protect the criminals, not the citizens. Police system where there is a lack of control mechanism, corrupt people are in the spotlight, they actually often take up a significant function in the police. This in turn affects negatively with other police officers in the sense that "if they can we can too" and thus between corrupt cops there is a silent agreement among themselves not to prosecute. In the Republic of Macedonia in the past years, police officers were employed contrary to the prescribed rules and standards or at significant managerial positions (chiefs) were placed people who approximately did not meet the legal and professional criteria for those places. This approach led to significantly increase of corruption in the police force, while on the other hand to reduce the effectiveness of police activities.

There is no doubt that the fight against corruption in the police force is a priority above all priorities, because you can not prevent corruption among other state institutions with a corrupt police. When talking for the police then and in democratic and non-democratic countries, it is the

possibility that they abused the power that it was given to them. That is the reason for not fully and legally standardize, but it depends on many circumstances which differ from case to case. A prerequisite for the successful execution of this function is the need to be professional, honest, impartial, corruption-free in one word be guided by high standards. That in the whole process of transformation, a particular attention is paid to the control mechanisms, could achieve the institution in carrying out its tasks to run and always act in a manner that is consistent with the Constitution and the laws of the state. It must be mentioned that the international community has not ever even noticed that the police still use prohibited methods, and that poses a serious threat to the legal state. In particular the police are required to be a professional service, not to apply undue coercion and maximum to protect human rights. Compared with the past, in our country visible changes have been made to the respect of human rights, also it ratified a number of international standards that are directly related to the protection of human rights. Another remark is that the Sector for Internal Control and Professional Standards refused an open cooperation with the Ombudsman and other non-governmental organizations.

THE CONCEPT OF CONTROL

Human history knows no society in which there was no need for control. In everyday life, the control is a very frequently used word and it means an activity that checks other activities whose purpose is to determine whether it is within the boundaries of socially acceptable behavior. The need to establish control over the institutions of government (and other) was noticed a long time ago, so still Aristotle noticed that the institutions that applied force can pose a threat to democracy and its institutions, unless not controlled. Also during ancient Rome, were talking about the danger of power which gives certain state (armed) institutions causing the doubts that could serve to undermine and destroy the existing political system. So the Romans have asked the question about Praetorians (Bodyguard of the Emperor) *Quis custodiet ipsos custodes* - And who will guard the guards.[1] In legal theory there are multiple definitions and views about the determination of the notion of control, but in our case means controlled activity which is carried out planned and organized on the basis of legal regulations, in order to detect, documentation and removal of unlawful or unprofessional conduct.[2]

In democratic societies it is considered that the control is the opposite of freedom, so the control is bad, while freedom is good. And indeed it is, the control has a negative connotation in everyday life as it is used as a synonym for many activities such as constraint, coercion, surveillance, guard, ban, punish, clamping, interference in the affairs of another, monitoring, verification, assessment, correction and more. But at the same time control means the rule of law, efficiency, quality, satisfaction honest workers, job motivation, influence in achieving excellent results, inability to arbitrary behavior, prevention of unlawful treatment, prevention of various deviations, disabling leisurely unethical behavior operations, introducing discipline and so on. Thus, although control is poor, however it is necessary, especially when it comes to the police and the monopoly power.

In this context it will be mentioned James Madisson in Alexander Hamilton's declaration which states "unless people were angels, there would be no need for the government and unless humanity will be ruled by the angels, then there would be no need either for internal or external control". This saying does not encourage us to think that there is no ideal man or system, over whom control is not required, and we are all aware of and we expect to happen something bad when you hear that something is gone out of control. Control, as a function of system aims to prevent erosion or by its dissolution and the time to identify and to remove all the anomalies in the system, in our case to reveal and to prevent police abuses.

1 This phrase is prescribed to the last satirist and writer of the ancient Rome - Juvenal (satires, VI, verse 347), who lived about 60 - 140 BC.

2 Naum D. Simeon G., Borce, D., Ana P.D. "Administrative Law" in 2008. Skopje p.353. According to them there is no difference between the control and supervision that does not exist i.e. it is synonymous and means monitoring, checking and evaluation activities, acts and behaviour in order to ensure their full material and formal legality.

THE ENTITIES RESPONSIBLE FOR CONTROLLING AND MONITORING OVER THE POLICE IN MACEDONIA

Entities can carry out audits over the police, depending on the position where they are located can be divided into internal and external entities. While in terms of whether they are authorized by law to control differ formal and informal mechanisms. Formal and Informal mechanisms include all stakeholders (government bodies and NGOs) that perform control over the police.

Formal mechanisms include all mechanisms that are required by law or have a duty to control the police. While informal mechanisms include all entities that do not have a legal obligation to control the police, but the nature of their work is such that it includes control of the police. This control is carried out in various ways and by various means which can usually cause major scandals and affairs of the society. The effectiveness of these mechanisms primarily depends on where the control holder is positioned and what are its legal powers.[3] But an interesting fact is that in both forms of control (formal and informal) there are internal and external entities.

Types of formal internal control

2.1.1 Police officers controlling - this type of control is known as hierarchical control means control performed by the officer staff or police officers to their workers. This type of controlling is the largest and implemented immediately, every day and in every segment of policing, which is why it is known as a regular control.[4] This includes all employees of the police and their work in general, vocational and constantly monitored by a higher authority. This control is an integral part of the performance of current affairs and not as an independent and separate function. This means that every officer has a duty to supervise the work of their workers through official supervision and control of success. Via the headman supervision checks work and professional conduct of the police officer, and through quality controlling checks success of the performed tasks. If headman through the process of evaluating their work comes to the conclusion that the employee has not achieved anticipated outcomes, then he can take certain measures of responsibility. Usually there are things for minor offenses that can be solved with a minimum sanction. But if the headman of the body through the process, conclude that the employee committed a severe violation of collective bargaining, then he should inform the *PSU* or to submit a proposal for the initiation of disciplinary proceedings.

When talking about hierarchical control, then we have to say that lately in certain police authorities, there was a worrying phenomenon, and it is a violation of the police hierarchy, which leads to confusion and reduce police efficiency. In these administrations police hierarchical control is visibly weakened, because the police officer (through a party) is connected directly with the Chief or Assistant Chief and thus loses the hierarchy. This way of working has led to the first superior officer (commander, assistant or guide) literally be blocked and will not review the work of their police officers. Even in cases when we conclude illegality or unprofessionalism, the headman is unable to bring an action against it since it obstructs by senior officers. If the chief of police, his personal position owes to a government minister (or political party) can not be expected that he would be impartial in law enforcement.[5] The effectiveness of this type of control will depend on whether it is necessary to activate other types of control.

2.1.2. Sector for Internal Control and Professional Standards - this type is a second level of formal internal control is *PSU*. This Service is to supervise the work of the Public Security Bureau and the Office for Security and Counter. As a specialized service works exclusively for the control of work of employees the Ministry, in cases where there is suspicion that they acted illegally or unprofessionally. Unlike the first level control (police officers) that is executed as part of the everyday things, this kind of control is performed as an independent and separate function. Thus, the control

3 These two classifications were given by the famous American author Bayley, D., H., Pat terns of Policing: A Comparative International Analysis, New Brunswick: Rutgers University Press, 1990, pp. 159 etc. quoted according to Milosavjevikj. B.. "Nauka o Policiji" p.306 and further.

4 Miletik, Slobodan. *Police Law*. Belgrade: Police academy, 2000. 371

5 Anthony T.KOE. *Functions of the police in the democratic society*, Skopje: Security No.4, 1994. 665

exercised by the Department responds secondary control or a control carried out by the Ministry of Interior over the police and it is the last instance in MI. For this type of control we will talk about it in more details.

2.1.3 The disciplinary Commission. In certain states disciplinary offenses committed by the police officers in performance of official duties, are resolved before the disciplinary court. In our country, within the police force there is a Disciplinary Commission which is responsible for conducting disciplinary proceedings. Usually any unlawful and unprofessional conduct, *PSU* initiates disciplinary responsibility before the Commission which is located within the Ministry of Interior. This means that disciplinary offenses internal matter of the police organization. But employees guarantee the right to appeal to court, where they can challenge the decisions of the disciplinary committee. Disciplinary Committee means the (internal) Police Court, whose activity comes into consideration in all cases when the employee will do severe breaches of the workplace.[6]

This committee is responsible for deciding, in relation to whether in officer is guilty and what sanction will be imposed. Accordingly, in Commission can initiate proceedings (it is working *PSU* or the headman) but only to judge. Moreover, the Commission has an in role to control in overall control mechanism in police, because she in process of conducting the evidentiary hearing, is able to control and operation of in *PSU*, so if conclude illegality, have to inform the Minister in writing or Assistant Minister, while evidence gathered in an illegal way not to take into consideration. In each regional Police Administration function disciplinary commission after the procedure shall be submitted to the office of the Minister's decision, which also acts Commission on notice that the decision of the disciplinary committee of regional administrations, may confirm or modified but can not back for reconsideration.

TYPES OF INFORMAL INTERNAL CONTROL

The above mentioned states that in this group are all subjects that have no legal obligation to control the police, but the nature of their work is such that you can cover this segment. Otherwise as a rule in certain cases, this type of control can cause major effects on members of the community.

Self-control

Self control means moral internal mechanism of each person, which consists in building attitudes about which procedures socially are acceptable and which are prohibited. Self-control means consciously limit on their behavior, in order to be acceptable and in accordance with the ethical, legal and professional standards that apply and are respected in the community. The mechanism of self-control act in such a way that the policeman alone, consciously limits freedom and their behavior by setting the same rules and regulations learned during training and in the service.[7] But this kind of control primarily depends on the strength of the features of each individual, so that those police officers who have loose character traits that will surely have a weak self-control and can easily resort to antisocial behavior. This type of control is particularly important in the cases where the employees of the Police take measures in the absence of the public, even in the absence of their elders. I would put all cases of use of force, performing searches, giving bribes (corruption) and any other situation that may cause the officer to various illicit affairs. If in such cases, the officer refers strictly according to the legal regulations, it contributes to increase citizens' ratings of the police as a serious and honest service. It requires during the training to develop awareness of personal responsibility and knowledge of the norms contained in the code of ethics of the police. The resulting police subculture[8] may contribute to the development of self-control, of course if it fosters professionalism awareness of personal responsibility. But the police can be nurtured and so-called professionalism callousness, where the officer has no sense of personal responsibility in relation to the consequences caused. Self-control as

6 The Commission can not on its own initiative to initiate a procedure, its role is to judge not blame. The role of internal prosecutor, who can initiate initiative is awarded to the SICPS and the officer staff.

7 Milosavljevic, Bogoljub, "*Civilian oversight over the police*" Center za antiratnu akciju, Belgrade, 2004. p.31.

8 Stojanovski, Trpe, "*Police in Democratic Societies",* Astor, Skopje, 1997. p.216.

consciously limiting their actions spoke Freud and his psychoanalysis. Freud's self-control are identified as super ego (id, ego, and super-ego) which means that the individual accepts external rules and act according to them.[9] Very often in the police work happens in front of the police officer to appear so-called conflict of interest.[10] When this interest appears in the work of the court, then the party has a right to bring an action for its removal, so you will not have any issues at stake in this body. But the situation changes when it comes to the police, it does not mean that if the headman learns that his worker in this particular case there is a conflict of interest, not to remove him from the action, it will certainly do. But the dispute is that the conflict often learned too late, usually after completion of the operation, because the nature of the operational work is such. Police officers are the ones who first arrive on the spot, first find out exactly what it was about, those are the moments when the public is very far away, so you can cop finds out that it is a relative or close friend, before it appears automatically collision interest. Conflict consists in the dilemma of how to proceed further? Hiding and destroying evidence and thus to protect the offender or to act professionally, guarding the spot, waiting to come team to inspect (scan) the spot. Practically there is no one to control officer. Despite the fact that in such cases it is difficult for complete objectivity and impartiality in question is still his awareness and education received in the course of training or self-control. Theoretically superior is the one who should think of all these questions, and to consider whether any of the officers in the present case there is a conflict of interest. But real is impossible to completely control the police by the headman, especially when it comes to these details, which can be understood very late.

Interpersonal control

This mechanism involves that kind of control where control police officers during the performance of official duties, mutual control. It is known that every police patrol is composed of at least two or three officers, except in cases when the police intervene then in larger numbers. Of course one of them manages the group and he bears the burden of control, but that does not mean that he can manage the group as they want, because the police are obliged to exercise control over the work of the guide, especially if his behavior is in line with the legal regulations. So if the police received orders to conduct illegal activities, they are obliged to warn the head of the group that they can not carry out illegal orders, and of course after arrival at the police facility all are obliged to draw up official material and to inform higher levels to ascertain his liability. However, the practice teaches us that between the police there is a high degree of solidarity and they almost never testify against each other. Such beliefs and attitudes officers additionally complicated the investigation of *PSU* because in almost all cases, they protect each other.[11] It is the result of the police subculture, but the mentality that goes into our environment. It is difficult to convince a police officer to testify against the policeman. But it is interesting that a research conducted by T. Stojanovski where 80% of respondents reported that they would report the colleague if they know they committed a crime.

Police trade union

The police union is an informal internal organization which is mainly focused on the issues of protection of the rights of police officer in the organization. Republic of Macedonia, has no special professional police association, which would deal with the issues of protection of the rights of policemen. But the union as an organization does not deal with the professional conduct of the of-

9 Milutinovic, Milan, "Criminology", The new Administration, Beograd, 1985, p.109.

10 SICPS in 2009, received a complaint from a citizen who stated that the officer in SIA (passports) has a private agency for the provision of intellectual services

11 So SICPS in one case could not conclude exceeding official powers in respect of the complaint filed by the person AD against a police officer who was patrol service with two colleagues from the SIA-Tetovo. Namely SICPS despite suspicions that allegations made in the complaint are realistic yet other colleagues persistently protected or testified in favour of their colleague, due to which the case was locked there was insufficient evidence. (client does not provide a medical certificate or report injuries) It is interesting that in Germany (where the officer has another mentality, subculture) than to us, if cop commits misdemeanor in the workplace, it is difficult to hide, because it will not allow his colleague. Such mutual control of the police officers themselves, contributed in this state has a special service to perform control, because every officer plays the role of internal control.

ficers, but they are a mechanism for protection of the police officer staff and the adoption of legislation that may harm the officer. This activity contributes to the democratization of the police.

THE CONCEPT, DEVELOPMENT AND TASKS OF PSU

The Sector for Internal Control and Professional Standards is an organizational unit within the Ministry of Interior, which shall perform the following duties. Its activity is located in the control and supervision of the Public Security Bureau and the Administration for Security and Counterintelligence, in order to detect and prevent all kinds of illegal and unprofessional conduct. There is no doubt that the emergence of these services is determined by the large number of criminal acts by police officers as well as unprofessional conduct and violation of human rights. This type of control is an indispensable instrument to ensure legality, respect for ethical and other humanistic principles and rules by the police. In practice, the need for control is never too perfect, especially when it relates to the enforcement authority that applies where an individual is deprived of his liberty. At these moments, each person can question the legal operation of the police, because it requires further guarantees that its guaranteed rights are maximally respected. The control aims to determine whether the police officers acted in accordance with the legal regulations which apply in Ministry of Interior. Such control in the true sense of the word means a barrier against police abuses and guarantee that the police will not apply to anti-social and illegal to achieve its function. Oversight and control over the work of the police, are a necessity in the operation of state law, because the police often tends to use more power than it is allowed, and the fact that each government is despotic if there is limited or if is not controlled. From the above mentioned can not be created the impression that the function of the sector is similar to that which had inquisitor and that it was created only to punish officers. The function of the Department, not limited only in examining the legality and professionalism of the conduct of police officers, but the officer staff. With the execution of the control over the officer staff, it actually protects police officers from the arbitrariness and not argumented attacks that can come from the elders of their superiors. It follows that the government and given to the *PSU*, consists in performing general handy work as for the citizens ,for the employees too.

But it is very important *PSU* towards achieving its role, to not act _ cosmeticly, nor to be a service that would wash "police sins."From this point of view, the justification of the existence of this service is that it is responsible and authorized to take measures to all employees of the police who behaved illegally to come to justice. So if the crime committed by employees has been increasing steadily and exceeding official powers by the use of torture, it is a signal that the *PSU* does not work as expected, and vice versa if the employees for taking official actions would act in accordance with the rules and regulations applicable police, proportionally it would reduce the need for control, which means that the goal has been reached, and that this service is functional. Indeed the good and efficient operation, need no control, but such a function can never completely disappear, because historically constant state institutions employed and people who violate laws.

We have mentioned that the *PSU* has a wide range of powers to carry out its function and represents the most important internal control mechanism of the Ministry and the Police which according to the rulebook is responsible:

- To conclude the appearance of unlawful activities of all employees in the Ministry of Interior; abuse of officials and police powers;
- Breaking the body of human rights and freedoms in the performance of police work; violations of standard procedures and procedures prescribed in each segment of the work of the Ministry and the police;
- Emergent forms of police corruption and corrupt behavior;
- Various forms of violation of the police code of ethics and rules of conduct in the service.
- Assess the validity of the use of forced funds by the police officers, in cases where it has performed serious bodily injury or death of the person who intervened
- Monitoring the legality and application of standards and procedures for
- Accession to the police;

• Monitor the standards of professional and legal actions in the services of the Ministry and the police;

• Monitor the quality of policing through the prism of professional standards established as the standard police work.

According to the above, it can be concluded that this service really has a wide range of activities. But in practice, often the question is whether the *PSU* as a Service is in charge of dealing with all the contradictions that may arise between the police and citizens, regardless of the intensity or severity of the charge or it will be included only in serious cases.[12] If you analyze the police law (article 81), then the *PSU* should be handled only in severe cases and when they use firearms when you are causing serious bodily injury or individual who has died or when they are used against several persons. Only in these cases, the Sector shall proceed to conclude the merits, accuracy, validity of used weapons. This means that the *PSU* will not engage in any use of force, but only in cases when it caused serious bodily injury or death. Since this remains logical to conclude that in cases when they are causing light bodily injury, the report will provide the first level control.

However to get the answer to this question must be consulted and other legal norms, especially Rules *PSU*, according to which the main task of the the Sector is to protect the human rights corpus. In the Constitution and in many international standards it is strictly prohibited all forms of inhuman treatment which can mean torture. Therefore the rulebook (Article 25) states that investigations relating to violations of human rights by the employee of the Ministry, corruption, excessive use of force and firearms and other severe cases of unlawful and unprofessional conduct will run exclusively investigators of *PSU*. So in practice, when citizens will complain that his human rights were threatened, and that force was used on them, *PSU* investigation regarding these allegations. The itself act of using force as a method to perform the service (usually during the interrogation of the suspect) is a serious act, because it is only examined by the Sector. In general every complaint from a citizen, shall be submitted to the *PSU*, regardless of the allegations and the seriousness of the allegations, but the Sector if it considers that it is a work of minor importance, the investigation may transfer the head of the appropriate organizational unit of the appropriate field. (Article 4) In this case, the initial report prepared by the first level of control, it is a superior authority, an official report again is submitted to the Sector, where we analyze the results of the procedure. So any report on the use of force shall be under assessment of *PSU*, which may not agree with the initial report, and further in the same case to prepare another report, which can significantly differs from the initial report prepared by the superior body (the first level control) or to agree with the opinion of the headman. If this report has a significant difference from the report prepared by the first level of control, then automatically cease to be valid and in force shall be the report on the second level of control.

In the cases when there has been sustained severe bodily injury or death, then the first level of control completely is excluded from the investigation and *PSU* regardless of police officers conducts a thorough, impartial and objective procedure.

The SICPS will conduct an investigation and in cases when workers of the Ministry of Interior will use firearms in private life, whether it is for business or private weapon.[13] In all cases where the *PSU* will proceed under the suspicion that has been used unnecessary force will have regard to Article 3 of the Code of Conduct for persons responsible for the application of the law[14], which states that persons responsible for applying the law may resort to the use of force if it is really necessary and to the extent that it requires the exercise of their duty. That, in turn means that officials can only exceptionally use force only when considering the specific circumstances of coercion is necessary to prevent a crime, or to commit or facilitate the lawful arrest of offenders or suspected. When we talk about the first and second level of control, then there is a need to distinguish operational from administrative operations. So when authority in the police will conduct an administrative procedure,

12 According to official UN Convention on Transnational Crime (Vienna, 2000) a serious crime is considered a criminal offense that is punishable with imprisonment of not less than 4 years.

13 SICPS several times so far has implemented a procedure for determining the liability for use of O.O from police officers in their private life. Thus in 2005, according to several employees of SIA-Gostivar took some measures for responsibility and they were fired because they used O.O on a wedding, where one person sustained light injuries. And in other places also filed criminal charges.

14 This Code has been adopted by the United Nations General Assembly on 17 December 1979 by resolution 34/169. In the original *Code Of Conduct For Law Enforcement Officials*.

which will bring a specific administrative act (decision), it is the first instance authority to address, in this case if the citizen is not satisfied with the decision, he has the right to appeal[15], but now as a second instance does occur *PSU*, but commission government. From this we can see that the *PSU* has almost no powers to the examination of individual administrative acts. Indeed, the governing body for running the administrative procedure is independent and based its decision on the basis of the established facts, so that no one can be ordered as to the procedure in particular administrative matter, nor any solution will bring in that procedure.[16]

But if it is proven that the officer in Administrative Procedure is abusing his official position, (he has been corrupting) then the question is who should conduct the proceedings, *PSU* or criminal police? Almost in all democratic countries, the case is cleared by the criminal police, by filing a criminal complaint with the Public Prosecutor, while his superior officer will provide disciplinary action. When the situation is the opposite, for any crime or offense by an employee of the Ministry of Interior, it must notify the *PSU*, so it submits charges and a proposal for disciplinary action, or completely clears the event. As another task is the normative function of the *PSU*, so the Sector on behalf of the Ministry prepares anti-corruption program and is responsible for its implementation. The Sector prepares an annual work program to set priorities and annual training program and professional development. At the end of the year, the Department prepares a report on its work, this report does not constitute classified information and it shall be published on the website of the Ministry[17], then the Sector prepares an anti-corruption programs, work program, training programs, etc.

THE ORGANIZATION OF THE PSU

The Sector of Internal Control and Professional Standards is part of the Ministry of Interior and is positioned in the ministry. Ministry as a body (state administration), its work is carried out on the basis of legal regulations (Rules) and laws regulating this area. According to the organization, is the central body, headed by a Deputy Minister. Independent authority because all authority is managed by one person or his headman.[18] As a state body *PSU* is located in the office of the Minister and performs on behalf and in order of the Minister.[19] Accordingly, *PSU* organizationally is directly under the authority of the Minister, which allows such a position hierarchically and has a broad authority and jurisdiction over the entire system of the Ministry. [20]Due to its position, it is defined as an elite unit of the Interior Ministry. Elite Squad is not considered because of the power that it has realistically; it has no physical power, as having a central police service, but it is called an elite because it appears as a direct Protector of the Ministry and of the citizens because it simultaneously protects both interests. When protecting the ministry of internal crime, the Sector appears in the role of prosecutor, and when it protects the citizen, then the role of the department is similar to what lawyers have.[21] *PSU* as an extended arm of the Minister, appears as instrument of the minsiter or tool, that discipline and establishes order in the institution. In other words it is set up to help minister to successfully run and manage with the ministry.[22] the Sector according to the organizational structure is an integral part of cabinet minsiterot while according to the structure that is composed of three units: Internal control-unit, Department of professional standards and Department for city of Skopje.

a) Internal Control Unit or also known as the Department for Criminal Investigation: Is led by a chief who is elected by the Minister on the proposal of the Deputy Minister for SICPS. Otherwise

15 Article 14 of the Law on General Administrative Procedure in Republic of Macedonia.
16 Gelevski, Simeon. *Comment of the Law on General Administrative Procedure*, Skopje: Faculty of low, 2005.
17 www.mvr.gov.mk
18 For more read the quote book "administrative law" prof. Naum Grizo etc.., 2008. Skopje p.119
19 SICPS was several years with offices located in the building where the minister sat which formally meant that it was his right hand.
20 By an act of the Minister of systematization of jobs and organizational structure MI, SICPS is a part of the minister's office; see the structure of the Ministry of Interior.
21 When talking about protection apprehended, then we mean of the moral protection, its dignity, protection from any kind of inhuman treatment, not that SICPS will advise and defend apprehended. For more read the book by Dr. Nicholas Matovski role of counsel in criminal procedure, Skopje, 1981.
22 It should be borne in mind the pioneering work of SICPS, so our internal control will and still have enough time to become what is this service in European countries.

previously opened internal competition, which have the right to apply all Ministry of Interior's employees who have completed higher education and experience in this ministry at least 5 years. This department is responsible for enforcement proceedings (investigation), when on any way get information that a person employed in the Ministry of Interior's is involved in crime. Under the present set-up this unit will investigate over all employees of the Ministry of Interior (unless the Minister) regardless of the function in which the employee is. It is interesting that the internal control has authority over the Office for Security and Counter, which is not the practice in other democratic countries and the right to question how it has a fair opportunity and capacity to control this service. According to rules of *PSU* (Article 2, paragraph 1) Internal control is defined as an activity by employees of the Department in handling the receipt of oral or written submission filed by a citizen or other entity for the purpose of determining the truth of the allegations made in it proposal for initiating a procedure for determining responsibility for breaking the work order and discipline and to establish the material, professional, misdemeanor or criminal liability of the workers in all cases their unlawful conduct.

b) The professional Standards Department, which is still known as the complaints department, complaints, legal actions and application of power,[23] which is also managed by a Chief, who is elected in the same manner as the Chief of the above department. This unit primarily concerns law enforcement officers to be professional especially in the use of firearms or implement procedures for assessing whether the force used was in accordance with the prescribed legal criteria. In practice almost all cases when the police used coercion, there is doubt whether it is used in accordance with the rules and regulations that apply to the Ministry of Interior. Long these procedures were assessed by the persons who applied force or by their direct superiors elders (first level) that came to mind the maxim "Cadi's suing Cadi's judge" while citizens raise doubts about the objectivity of the evaluation, leading to a loss of confidence. Therefore, in democratic societies requires in all cases the use of physical force procedure for determining the legality of the use of force to enforce the authority who did not take part of the event and that provides sufficient guarantees that the investigation will be conducted very objectively. *PSU* is in charge of objective and straightforward way to answer whether the means of coercion are used in accordance with the prescribed standards and criteria. Because members of this unit must be good connoisseurs of the legislation and the criteria on which you can answer it, if the used tool was **established, justified and proper**. Such a procedure is performed in all cases by police officers or officials, use of force and firearms because that will cause serious bodily personal injury or a person is dead or they will be used against several persons. If is concluded that the force used is not established then it comes to illegal conduct. Unlawful conduct within the meaning of Regulation *PSU*[24] abuse or misconduct that have employees, when performing their tasks, and during the prescribed standard procedures and procedures in each segment of the work of the ministry and the police, which violates the corpus of human rights and freedoms and their corrupt behavior and acting contrary to the provisions of the Code of Police Ethics, Guidelines for the behavior and interrelationships of police officers in the Ministry of Interior and rules for the conduct of persons with special duties and powers as and any contrary behavior legislation.

Apart from these two departments in the Sector it functions and department for Internal Control and Professional Standards for the City of Skopje, which is also managed by a Head and Analysis Unit.[25]

23 The word standard means prescribing certain norms, criteria, regulations would be valid for all analogous cases. The purpose of standards is to lay down the basic principles that form the basis for the performance of police functions. Here it is not about any specific standards that apply to SICPS just the standards applicable to police officers that are defined and contained in police code. Thus the task of this unit is to control how much they are respected by police workers or how officers behave in accordance with those standards. But these standards are specific only the police function that called professional standards which means you are connected to the profession which they refer to.

24 Article 2 of the Rules of doing things by SICPS, this law was enacted in 1997 and has undergone several changes, especially in 2006. Regulation does not contain provisions where you can see that sanctions can be proposed by the SICPS.

25 This unit forms the record of all police officers who are penalized by the Department. It is also responsible for coordination of all complaints that come in the sector in relation to the finished investigations and investigations which are underway, linking with the adviser who worked on that subject while allowing provision of timely responses. The unit keeps records of all conducted investigations. They also perform statistical processing of data, which gives quarterly report unprofessional work of the employees in the police.

DEVELOPMENR OF THE SECTOR FOR INTERNAL CONTROL AND PROFESSIONAL STANDARDS AND MATRIAL – TECHNICAL EQUIPPING TODAY

In Republic of Macedonia, for the first time in 1998 by a decision of the Minister within the Ministry of Interior established the Internal Control in charge to carry out the procedures for determining the cases of violation of human rights and freedoms by authorized officials as well as to determine other cases of unlawful activities.[26] At the very beginning was the organizational unit manager and three inspectors. Later the number of inspectors dimensioned eleven and so functioned until 2003. In 2003, the Sector expanded even with one unit - known as Unit for professional standards, so that today functions as the Sector for Internal Control and Professional Standards and count somewhere around 45 employees. Employees of this office are chosen from the ranks of the police, criminal police and SIA, how could the service have the capacity to perform control over all successfully employed in the Ministry of Interior. However all employees have a university degree and have many years of experience in the Interior Ministry. This institution (*PSU*) to 2003 worked with no defined rules for their work, so for this period and did not run any statistical records, and not made analytical reviews. In the beginning, the institution functioned only at the request of the Minister or the Director of Public Safety. This was because at that time, citizens starting out do not know that there is such a service, that it was not very popular, even the employees do not know whether in the Ministry of Interior, there is the internal control. Therefore citizens complaints against police officers addressed directly to the Minister or Director, and today has a large number of complaints directly sent to the Minister. So how they were received, letters were submitted to the Department for Internal Control, which further implemented the procedure and finally submitted a report on the results of the investigation. The report contained an assessment of treatment officials and suggestions for taking measures, of course if it is determined that there are flaws or irregularities in the conduct of the employees of the Ministry of Interior . Based on this report, the Minister or the Director against the employee took some measures for responsibility. But the minister has no legal obligation to act upon the proposed measures given in the report, so in many cases where this service there were illegal actions, measures have been taken since the last word has the Minister and it depends on whether you file an determining responsibility, not the *PSU*. But as it is, with the submission of the report shall cease all further powers *PSU*. Despite the fact that in our country this service is not independent, but is under the command of the Minister, however a few years of operation, undoubtedly showed great results in the protection of human rights and the detection and documentation of police abuses. Today, the headquarters of the *PSU* is physically located in the offices of the Ministry of Interior, street Dimce Mircev nn, Skopje. The rooms despite being part of the Ministry of Interior, are located outside the main complex of buildings and as a result they are separated from the daily affairs of the ministry in all its forms. Before the end of 2006, the department was housed in the ministry complex In the building that are placed The Minister and Director of the Public Security Bureau, which represents additional difficulties for working with parties etc.. All advisors working in the seats have offices that can be locked when they are not working in them to protect sensitive materials. the Sector, except the staff is located in its seats, has advisers in several geographic locations or detached inspectors across the country: they are Bitola, Stip, Veles, Strumica, Tetovo, Gostivar, Prilep, Ohrid Kocani and Kumanovo. Despite these detached advisors work directly under the Assistant Minister of *PSU*, they depend on SIA chief out where their offices

26 Internal control services or professional standards units as separate services, relatively new. They in the true sense of the word occurred after the Second World War, with the adoption of a number of international standards that directly address the human rights protection of police brutality (torture). By then, the police was more inclined to protect power than citizens. Such an approach continued after this period, particularly in those countries where the power came from the Communist Party. In these countries are very significance of human rights, but priority always had state institutions. Although the law prohibited torture, yet it was one of the common methods especially during the interrogation of detainees. (especially if the person was arrested on suspicion of the country is against the socialist editing).So in that system officers and inspectors DB daily crossed official powers, which had no responsibility. But that does not mean that in these countries, the police had no control, rather that they are constantly controlled and that control had to check whether they protect human rights, but also how prepared they are to effectively protect the existing communist regime. Such control is performed by the Communist Party. Today violations of human rights constitute one of the most serious criticisms against socialism, because in police officers in socialist countries were concerned with and educated for the protection of human rights.

and all other equipment, including the use of vehicles. Conditions in which they work and their access to equipment vary according to local conditions and according to the position of regional managers in some cases.

Equipment. The headquarters of *PSU* is more than adequately equipped with furniture in the form of desks and chairs. the Sector is supplied completely with computers, so each adviser has a computer in his office (but not the printer). the Sector has five vehicles used by employees of Skopje, while detached advisors (except Bitola) do not have vehicles, so they are forced to address the Chiefs, somewhat the Sector loses independence. They work alone and are not supervised and do not have daily support from other colleagues and heads of *PSU*. The atmosphere can be either too friendly or too hostile with the police officers against whom they will be able to investigate, and which are of the same SIA. Already alluded to their dependence on Heads of SIA for the resources that are needed to undertake their duties. Furthermore, in the past it was not uncommon for the local chiefs of police to interfere in the work of the members of the *PSU*, even to take the cases and they do not have turned headquarters to *PSU* even though the rules of *PSU* commits it. The entire staff, including detached advisors are equipped with business mobile phones and SIM cards. There is a GPS unit that is equipped by ICITAP. Councilors, under 20% are ethnic Albanians and about 30% are women: the entire support staff are women.

CONTROVERSY ABOUT THE POLICE'S INTERNAL CONTROL MECHANISMS

Today in all democratic countries, the idea of the police to control itself is absolutely unacceptable. The Republic of Macedonia has repeatedly been criticized by international institutions. [27] The Republic of Macedonia has built an independent mechanism for the control of the police, which means that illegal police and unprofessional activities can be deliberately silenced. Then the members of the internal control, police officers, who are emotionally attached to the other police officers, also remain a suspicion that they are in the course of the investigation, more attention will be paid to the facts in favor of police officers from the facts that hinder their position. Experience suggests that the police officers blank symbolic fines. In a word, the absence of external control, provides an opportunity for unlimited police power.

In this direction we propose to set up a model of civil control over the formation of local committees. With the introduction of the external control mechanism it will introduce a major innovation in terms of control of the police. Citizens are given the opportunity of getting a controlled police, who will be more transparent and accountable to citizens.

CONCLUSIONS AND PROPOSALS

In this paper, we do not intend to point out that the Sector for Internal Control and Professional Standards is an ideal service that managed, throughout the period of existence, to completely eliminate torture and criminality from the police force. It is very clear that there will be always individuals in the police who will act contrary to the legal regulations. But also it cannot be denied that the *PSU* for this period, it managed to reduce the dark figure of crime committed by the police, before the existence of this service was certainly much greater. The internal control police of the Republic of Macedonia, is a relatively new service and occurs as a result of progressive ideas related to the protection of human rights. The justification of these services is reflected in the fact that (the state) the police must not arbitrary and illegally use the power that is given by law. Hence these services appear as a guarantee and creates legal security of citizens, that monopoly power will be strictly limited, channeled and used only in achieving the statutory objectives. Today, as a result of the

27 See case Sluejmanov against the Republic of Macedonia before the European Court of Human Rights. In the judgment of 25.04.2008, the court concluded that the complaint of Suleiman that he the tortured by the police authorities, it was not conducted an effective investigation and it went into an injury of Article 3 of the ECHR. For more details see: http://www.pravda.gov.mk/documents/book1.pdf.

effective and efficient operation of the *PSU* significantly improves the professional conduct of police officers, especially during direct contacts with citizens, every citizen can testify that the quality between the relationship with the police officers is improved. Also in the police procedures during the interrogation of a suspect, the torture is rarely used. It can be freely said that torture as a means of extorting a confession goes to the past. Towards this, despite punishing measures, the Department carries out educational activities for citizens, it has prepared promotional material that will be placed in a prominent place in all the police facilities, which will be called on citizens to report police abuses and unprofessional treatment. *PSU* through the mass media (press conferences) informs the public about the measures taken against employees who acted contrary to the legal regulations that strengthen the confidence of the citizens in the sense that no one is above the law.

Justification of the existence of this service is reflected in the fact that *PSU* not only protects citizens from the police, but also is a strong regulator of the internal relations in the police. It protects "the police from the police". This benefit of this service is not only felt by the citizens, but also by the employees, because now they have a place where can freely complain against the officer staff or to report their unlawful activities. Furthermore, it can be concluded that the *PSU* in comparison with other external mechanisms, including the judiciary as a statutory body responsible for the protection of human rights, has a dominant role to the protection of human rights and the disclosure of police abuses. The sector writes reports quarterly, semi-annually, and the same are published on the website of the Ministry of Interior, where are available to the public. Long period these data, and the Rulebook on doing things, *PSU* treated as confidential and were not available to the public, even the legal ombudsman. We believe that this is a really positive progress.

Despite the positive changes, however, lack of independent external control mechanism for the police leaves space for suspicion in some cases. It is necessary to establish a new effective external mechanism along with counselors of *PSU*, which will be involved in all cases of use of force which caused serious bodily injury or death. We propose that Macedonia is to create an independent central panel with advisers who would conduct investigations in all cases of the use of force incurring serious bodily injury or death or serious cases of corruption. Apart from the central committee, we propose to form local committees, which would consist of citizens from the local government or may be of a mixed character. In the case of the use of force by the police, one or two members from the local committee would be part of the investigation, and in all cases where the police used lethal force, a member of the family of the deceased with participate in the proceedings alongside members of the local investigation committee. This will be closer to the new concept of Police Community Policing that Macedonia is striving to develop while hoping to be part of the European Union.

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POLICE, MINORITIES AND SOCIALLY VULNERABLE GROUPS[1]

Lecturer **Boban Simić,** Mr. Sci.
Associate Professor **Željko Nikač**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: In the context of a new model of organization and methods of work of the police in Serbia, significant progress has been made towards improvement of relations between police and minorities. Considering foreign and domestic experiences, suggestions of international partners and requests of professional and wider public, Ministry of Interior of the Republic of Serbia in the period of democratic changes has built platform for improving relations towards minorities and other socially vulnerable groups in the community. Considering that, success achieved in building the capacity of the police in this area with the great help of the international community, is extremely important.

Keywords: police organizations, communities, citizens.

INTRODUCTION

In various countries of the world different models of direct cooperation between the police and citizens is applied. Which model of direct cooperation between police and citizens will be chosen depends largely on local specifics, problems, and differences in strategic approaches. However, regardless of the differences there are similarities of policing at the local level, which are accepted as the world standard and are applied around the world in different modalities.[2] Adoption and introduction of "Community policing" and the transformation of the police in this model represents the civilization minimum, and a requirement that a country must meet in order to be eligible for admission into the european and world integration.

Introduction and model development of "community policing" in the Republic of Serbia, was caused by the modern trends of social change and strengthening of institutions of a democratic society. The main goal was to improve crime prevention and overall safety of the citizens through the realization of partnership relation between citizens and police.[3]

In order to prepare for introduction of a model "community policing", Ministry of Internal Affairs of the Republic of Serbia in 2001 has taken measures of reaffirmation of sectoral ways of working for police officers, so in that way the necessary conditions for better prevention and development of partnerships with citizens was created.

Minorities and other socially vulnerable groups of citizens, receive much more attention in the context of a new model of organization and methods of work of the police in Serbia. Ministry of Interior of the Republic of Serbia in the period of democratic changes has built a platform for improving the treatment of minorities, socially vulnerable and other groups in the community. In this sense, success in building the capacity of the police in this area was of great importance, and it was made possible with the great help of the international community, through projects and in other ways.

First projects and documents in this regard, which is mainly driven and implemented in cooperation with foreign partners, gave the initial framework for the attitude of the police towards minorities and socially vulnerable groups. These were pioneering ventures in this area, in terms of organization and the new concept of policing.[4]

1 This paper is the result of the research on the following projects: "Structure and functioning of the police organization-transition, condition and perspectives", which is financed by the Academy of Criminalistic and Police Studies; "Violence in Serbia – Causes, Forms, Consequences and Social Response" which is financed by the Academy of Criminalistic and Police Studies.

2 Nikač Ž., Simić B. (2009), "Razvoj policijske organizacije od tradicionalne ka savremenoj u funkciji suzbijanja kriminaliteta", Nauka, bezbednost, policija, vol. 14, br. 3, Beograd, str. 117-131

3 Simić B., "Savremeni koncept policijskog rada u okviru zajednice", *Bezbednost*,, br. 3 (2009), str. 157–172

4 Projekat *Odnos policije i manjinskih i socijalno ranjivih grupa*, završni izveštaj prve faze projekta, OSCE, British Council i MUP RS, Beograd, 2006.

VULNERABLE GROUPS IN RELATION TO THE NATIONAL AFFILIATION

The Republic of Serbia is a *multi-ethnic community* where the majority of the population are Serbs, and besides them citizens of other national communities equally living and working with. First of all, there are minority originating from former federal units (republics) from formerly common state of Yugoslavia, then members of national communities originating from neighboring countries and other. That is why, among other things, is needed a special sensibility of public authorities towards national communities and their members, who are equal citizens of Serbia.

Of special importance is the relation of the police and the citizens, national communities (minorities) and their members, because it is known that in the past there were individual cases of abuse of powers, abuse of office and other non-legal actions of individuals from the ranks of the police. A special weight to the problem is given from the fact that Serbia is a country that has just begun the process of transition, that its society has not yet classical civil orientation, and that the education rate of population is extremely low. Representatives of national minorities are particularly sensitive because of the cases of state repression from the past[5], so the work of the police and its members is under the watchful eye of the public, local communities and citizens. A mitigating circumstance is a good position of the media, which represent a significant correction factor, very critical towards the state, the work of its agencies and carriers of powers.

a) AP of Vojvodina is the multicultural part of Serbia which has always been a synonym for normal coexistence of majority (Serbian) population and other (minority) ethnic groups. After the democratic reform, there has been a positive change of attitude towards ethnic communities, including the positive change of police attitude against minorities in the communities where they live. Problems that were registered in the Report was related to the lack of knowledge of the language (Hungarian), then to occasional excesses of nationalist individuals (verbal insults and graffiti), lack of national minorities in the police personnel, etc.[6]

The current situation in Vojvodina is much better, relations between ethnic groups are more harmonious, as well as relations between their members and the police. Language barriers are still present, but not as much as before, because young people from minority communities and the police tore down many barriers. Technical base for the work of the Ministry of Interior Police is increased, the Latin alphabet has been introduced, and that's partially helped to overcome language barriers. Human resource policies is improved and in accordance with that the interest of minorities (Hungarians, Romanians, Russians, Croats, Bunjevci etc.) for admission to school and for the work in the Ministry of Interior is increased. Confidence in law enforcement has increased especially after a few vigorous police actions against groups of nationalists such as "Movement of 64 districts" (2005),when a group of ultra-nationalist attacks on participants in discussions on Philosophy Faculty (2006, "Fuhrer"), and when the same group is stopped in an attempt to organize riots in the streets of Novi Sad (2007). Recommendations of the European Commission, that followed after their visit about several isolated cases of inter-ethnic incidents (2005), are most responsible for good results and better mutual relations.

b) Raska (Sandzak) is an area that gathers territories of several municipalities (Novi Pazar and Tutin) where the Bosnians (Muslim) are majority, as well as on the territory of several municipalities in the region of Uzice (Priboj, and Nova Varos). According to this report, the territories inhabited by mentioned ethnic communities, citizens and nationals of the Republic of Serbia, there was a visible presence of distrust in police.[7] This is primarily the result of past civil war in the former Yugoslavia, especially events in Bosnia (war crimes, refugees, etc..). Of course, all this unfortunate events has left a mark on international confidence in the region and the gap between the communities, their members and the government is increased.

Democratic social changes brought real changes in the area of inter-ethnic relations, and there has been a qualitative changes in relations between Bosniaks and other communities to the police and other authorities. Police have also established good relations with the public and local govern-

5 Ibid., p. 8–12.
6 Ibid.
7 Ibid.

ment, while on the internal plane police made a step forward when several young people of different nationalities and level of expertise are promoted to commanders. Great progress has been made in the part of respect for human rights, civil rights and other universal values. There were no cases of discrimination, torture or illegal treatment of Muslims and members of other ethnic communities. We believe that a good result and positive energy in this region can be established with pro-european approach of all national communities, with responsible attitude of political and religious leaders, and concern for the future of the community.

c) South of Serbia (Ground Safety Zone) includes the municipalities of Bujanovac, Presevo and Medvedja where *Albanians* are the largest ethnic group (the minority). The territory of these municipalities is located along administrative line with AP Kosovo and Metohija which is, in accordance with UN Security Council Resolution no. 1244 from 1999., currently under the jurisdiction of the UN. It is a zone that is, from the standpoint of domestic and international law, under the specific security regime, which is of great importance for the Republic of Serbia. Due to the different ethnic and religious composition of the population, the problems in the past and the war conflict, territory in southern Serbia is specifically categorized as Ground Safety Zone. Within the Ground Safety Zone currently are located a small military contingent of the Serbian Army and the mostly the regular police force, with a number of members of Gendarmerie.

In cooperation with the OSCE (OSCE) in Serbia have been organized in a multi-ethnic police project (*Multiethnic police project – MEPA*). In accordance with the project greater number of Albanian citizens were admitted to education (specialized course) for the Ministry of Interior.[8] These are Serbian citizens who fulfilled the required conditions and who have expressed a desire to be police officers. Purpose of the project is to harmonize the personnel of the police and ethnic composition of the population, which would strengthened mutual trust and co-existence in the region. According to the principle of positive discrimination, quotas and other admission standards are much broader interpreted in favor of candidates from the majority (Albanian) national community. As a result, the number of special police forces (Gendarmerie) is reduced, because it is in accordance with European standards and the desire to improve inter-ethnic relations.

g) *The Roma* are traditionally nomadic people. It is a minority ethnic group that is particularly discriminated in most countries, and to some extent in our country. One of the problems of youth in that national community is the fact that it does not have its home country and in this sense there is no classic national identity.

Official reports indicate the existence of a certain degree of discrimination against Roma in the Republic of Serbia, not only by the police but by the entire society. Discrimination of this community in the past was almost normal phenomenon, which was based on the classic stereotypes of the Roma population. Difficult economic and social status of Roma deepens discrimination because they lack education and therefore no permanent employment and source of income. The same situation is with the application of Roma children in kindergartens, schools and other regular benefits in society. Fortunately, a number of members of this population with help of the community was able to overcome these taboos, and gained employment after schooling. Individual cases of discrimination against Roma was in everyday day life situations, such as gathering in youth clubs, public places (in cafes, swimming pools), while renting of apartments, etc.[9]

Legal treatment of Roma is difficult because of their socioeconomic status, stereotypes that accompany them and lack of education. Despite the fact that Roma are breaking the law and that they are often the perpetrators of criminal acts, they are also often the victims and the injured. A special problem is the fact that the Roma don't have permanent or temporary residence, and they are treated as "legally invisible persons" and because od that they have problems in achieving civil rights. In order to overcome administrative barriers, the Ombudsman has recently initiated new legislation on identity cards,[10] with the changes that Roma can register permanent residence at the local Center for Social Work. In order to solve the problem and the status of the population of Roma, in Serbia was initiated several actions and adopted several documents, such as: *The Decade of Roma, Act on Roma inclusion, Strategy on Roma, Council for Roma* and others.

8 Projekat Odnos policije i manjinskih i socijalno ranjivih grupa, završni izveštaj prve faze projekta, OSCE, British Council i MUP RS, Beograd, 2006, p. 8–12.

9 Nikač Ž.,(2012), Koncept Policije u zajednici i početna iskustva u Srbiji, Beograd, p. 103-122.

10 Službeni glasnik RS, br. 62/06, 36/11.

d) *Ashkali* are ethnic community that is also registered in the Republic of Serbia, they are very few and loyal citizens of our country. However, because of the relatively small number, they are not adequately represented in government or through their NGOs. The OSCE report points to this, and the fact that this community is often confused with Roma and Albanians, and that is partly exposed to discrimination.[11] Particular problems are caused by lack of education in their native language, lack of focus of the media, lack of representation in Parliament and other matters.

VULNERABLE GROUPS IN RELATION TO SEX AND AGE

The most sensitive category in the discussion on relations between the police and minorities and socially vulnerable groups, as target groups from the standpoint of gender and age are listed women and children. In The Republic of Serbia has not been adequately considered victimization dimension of crime, so these and other categories of victims and the injured have been neglected.[12] Women and children are often victims of violence that occurs in a known environment such as schools and families, but also in a less familiar environment, outside (on the street) and indoors, and as a target in the context of property related and other offenses.

Women and children as victims of violence and other forms of crime (socio-pathological phenomena) does not always come to the police for help, because in the past there was partly distrust in the state and its organs, and injured party more frequently contacted NGOs.[13] In the recent past, domestic violence and other forms of attacks on women and children were legally vulgarly interpreted as privacy, and "parties" are referred to the litigation or other proceedings. However, after the democratic changes situation in the police is changing much more quickly than in other institutions, which of course is not sufficient *per se*. The police alone can not solve these and other problems if other institutions do not function in the community, therefore, complete etiological approach in terms of eliminating the causes and conditions of criminal behavior is required.

In addition to legal obstacles to the protection of women and children in Serbia, many stereotypes, traditionalism, certain forms of discrimination against women are problems related to the cultural environment and stereotypical behaviors in Serbia. Persons for law enforcement (eg, police officers and others.) could also pose a special problem, because sometimes they occur as perpetrators of criminal and other offenses in which the victims are women and children. A particular problem is the perpetrators of high social status who have significant financial and other capabilities, and their processing is difficult because of the significant illegal influence on state authorities. We remind to the problem of drug abuse, which can be a significant aggravating factor of vulnerability of women and children, as victims of the corps of socially vulnerable groups.

VULNERABLE GROUPS IN RELATION TO DISABILITIES AND THE DEVELOPMENTAL DISABILITIES

People with disabilities and those with certain developmental disabilities represent a particularly vulnerable group in society. These facts to a large extent influence their overall position in society, particularly with regard to the realization of individual rights and in the sense of relation of community to them. Impaired health condition of persons from that category makes them very vulnerable - they need a special attention and social concern.

Relations between the police and the members of these groups is the same as the relations of police with other citizens, based on law and without discrimination. However, because of the specific weight of problem and other reasons, the police do not have sufficient capacity to resolve these issues alone, and represents just one link in the chain of government and other agencies and organi-

11 Projekat Odnos policije i manjinskih i socijalno ranjivih grupa, završni izveštaj prve faze projekta, OSCE, British Council i MUP RS, Beograd, 2006, str. 8–12.
12 Op. cit. u nap.6.
13 Ibid.

zations. Police as a service of citizens, has to have a special sensitivity for those categories of citizens and help them in achieving their rights. In cooperation with the relevant ministries (labor and social policy, health, finance, etc.), Ministry of Interior of Republic of Serbia can fulfill its role of service and help this category of the population.

People with developmental disabilities, based on national and international literature and practice, are considered to be persons who are mentally retarded. Expert opinion is that the level of awareness in Serbia is extremely low, and considering the fact that there is a large number of people who are mentally insufficiently developed, they represent the most endangered minority group in Serbia.

Because of the lack of direct communication, contacts between police and the people from this group, was going through an agent. Communication between police and the citizens of that category is very difficult, so several years ago role of the police service, in terms of helping people from this group, is increased. Of particular importance is the School of linguistic and voice signs, for education of police officers in dealing with deaf people, launched in cooperation with the Ministry of Interior and professional organizations and associations of such persons.[14] Great progress has been made with the adoption of anti-discrimination law, which provides special protection of persons with disabilities and special needs.[15] Besides the Constitution of the Republic of Serbia[16], it is the principal regulation in the fight against discrimination in general, with previously adopted special Law for prevention of discrimination against people with disabilities.[17]

Families whose members are individuals from that category have specific social needs, and that represents aggravating circumstance for them and the community. Persons from that category are particularly vulnerable because they are suggestible and susceptible to specific types of abuse, such as sexual assault, solicitation, incitement to offenses and others. According to data from Special school for the light and moderately retarded children, over 60% of these students are members of the Roma population, who thus are practically doubly discriminated. Despite good initial results and a solid normative basis, there are problems in terms of lack of funds, lack of a sufficient number of residential institutions, and kindergartens particularly adapted for children with special needs and other categories.

We believe that we obtained good initial results on improving the situation of disabled persons and persons with developmental disabilities, but that we should continue with preventive and other activities aimed at creating conditions for their full inclusion in mainstream schools and parts of the system.

VULNERABLE GROUPS IN RELATION TO SEXUAL ORIENTATION

Particularly vulnerable social group in modern society are the representatives of the LGBT (lesbian, gay, bisexual, transgender) population, consisting of homosexuals, bisexuals and transsexuals. In economically developed countries with a rich history of democracy and parliamentarianism, that population now has a fairly broad civil rights and discrimination is reduced to a minimum. This of course is not the case in smaller, poorer countries in transition, where economic and other reasons mainly cause of inequality and discrimination. In many countries, their status and the realization of civil and human rights are below the expected level, because of different external (ambient) and internal factors that influence them.

a) Human rights and civil freedoms are in the the corpus of the world universal values, and are therefore protected by the basic international documents. Thus, in Article 1 of the UN Universal Declaration of Human Rights, among other things, is stated that "all human beings are born free and

14 Kosanović, M., Gajin, S., Milenković, D.,(2010), Zabrana diskriminacije u Srbiji i ranjive društvene grupe, Projekat „Podrška sprovođenju antidiskriminacionog zakonodavstva i medijacije u Srbiji". EU, UNDP i Ministarstvo rada i socijalne politike RS, Beograd.

15 Službeni glasnik RS, br. 22/09.

16 Projekat Odnos policije i manjinskih i socijalno ranjivih grupa, OSCE, British Council i MUP RS, Beograd, 2006, (čl. 14, 15, 18, 21, 24, 32, 43, 44, 46, 50, 55 i dalje).

17 Službeni glasnik RS, br. 33/06.

equal in dignity and rights."[18] On this basis, many important general international and regional human rights instruments, then charters, declarations, resolutions and other documents was adopted. Certainly the most important are the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights,[19] adopted in 1966, and their later novels. In these documents individual elements of discrimination based on race, color, sex, language, religion, political or other opinion, national or social origin, property, birth, disability and other factors are closely determined.

Equality and equity represents a civilizational heritage, and today it is difficult to find a country that will officially, de jure, deny basic rights to a group of citizens. However, the fact is that there is no country in the modern world in which discrimination is not happening in regarding of status and achievements of individual rights. These are the difficulties that members of this group have in realization of the rights to education, work and employment, social security, assistance, treatment and other rights. Considering that the violation of these rights are often followed by absent of sanctions for violators, discrimination of these persons is increased and often out of the public eye.

b) social attitudes towards LGBT population in Serbia is in accordance with traditionalism and patriarchal attitudes that prevail in this region. Especially negative attitude towards the gay population - the prevailing attitude from the past that this is a disease and not, according to modern doctrine, it is a difference in terms of sexual orientation. Modern understanding of the right to privacy includes the ability of the individual to express publicly their personal characteristics and attitudes to be different and behaves differently from the other.[20] However, this right is compromised through various forms of denial of the right to assembly, such as the so-called Pride Parade and the other gatherings.

Despite the fact that homosexuality is not considered as disease for a long time in most countries, it's a big social taboo. That's why in some countries that question is legally regulated to some extent, and even same-sex marriages are allowed or so-called registered partnership. Legal regulations, of course, are different in various countries, while the European Court of Human Rights has taken principled legal position (2010) that gay marriages do not belong to the body of basic human rights. Accordingly, this issue is not within the jurisdiction of the European Court and concerns of each Member State of the Council of Europe that needs to regulate that issue in their domestic law.[21]

In Serbia until 1994. this has been treated as an offense under the Criminal Code of the Republic of Serbia (Article 110, paragraph 4), but in the meantime, the Parliament adopted the ZID CC of RS and the homosexuality in Serbia conditionally gained citizenship. Further novels are followed by the adoption of the new Criminal Code of RS in 2006th. We add that after the democratic changes in Serbia several new laws with favorable solution are adopted, and discrimination is expressly prohibited, not only by the provisions of the said Act on the prohibition of discrimination, but also by the Labor Law,[22] the Law on Higher Education[23] and others.

The right to express their sexual orientation is not explicitly recognized in the domestic law of Serbia, but it is provided in Article 8 of the European Convention which states the right to respect for private and family life. However, it is clear that in addition to the legal mechanisms, existence of ambient and social factors is needed in order to facilitate easier realization of the rights of the LGBT population in Serbia. For now, homosexuality is not acceptable in most of society because of moral and religious beliefs, ethical principles and the other traditional reasons.

Finally, we add that there are many prejudices and the stereotypes due to which the problem is even more complex, and it takes time for the community to achieve sufficient capacity for these issues.

18 Universal Declaration of Human Rights, usvojena je i proklamovana Rezolucijom GS OUN br. 217-A od 10. 12. 1948.
19 Internacional Covenant on Civil and Political Rights i Internacional Covenant on economic, social and cultural rights, ratifikovani 30. 1. 1971, Službeni list SFRJ, br. 7/71.
20 Dimitrijević, V., Popović, D., Papić, T., Petrović, V., Međunarodno pravo ljudskih prava, Beograd, 2006, str. 203–205.
21 Ibid., p. 5–6.
22 Službeni glasnik RS, br. 25/05, 61/05 i 54/09.
23 Službeni glasnik RS, br. 76/05, 100/07, 97/08 i 44/10.

CONCLUSION

Since the efficiency of the police to larger extent depends on the support, cooperation, respect, and direct assistance of citizens, we will give suggestions aimed at improving police treatment of minority and socially vulnerable groups, and suggestions for building a better social environment and harmonized community relations in the Republic of Serbia. The ultimate goal is to fight against all forms of discrimination, and in this context, protection of human and minority rights, civil liberties and other universal values.

Proposals and suggestions:

– *transition* of society has led, among other things, to the creation of more marginalized groups, which require the analysis of social structure and adjustment of activity of the police to these changes;
– *police reform*, decentralization and the new organization are imperative for the development and progress of community service, along with previously announced (but delayed) lustration;
– *better education* of police and members of minorities in order to change the attitudes of the police, breaking stereotypes and prejudices;
– *admission of members of minorities in police force* and, in this regard, customization of the program, preparing for entrance examinations, attending classes in their native language, so-called quota for minorities system for admission to The Academy of Criminalistic and Police Studies and SŠUP (COPO);
– affirmation of the *police profession* and the interest of young people for the police is very important, as well as stimulus of communities through decent economic status (salary, housing) and better working conditions (vehicles, computers, laboratories);
– multilingual communication, knowledge of languages of national minorities by members of police, issuing documents, certificates and confirmation *in languages of national minorities*;
– differentiated approach to the victims of the police in relation to the specifics, social vulnerability, sensitivity, and empathy for the their position, without that reporting crime represent additional trauma to the victim;
– statistics and keeping records of so called hate crimes;
– improvement of judicial authorities;
– adoption of new legislation on NGOs, antidiscrimination (the law was adopted), gender, and other, simplifying procedures and effective process;
– improvement of multi-sector collaboration, forming of inter-agency teams and maximum involvement of public authorities and civil society;
– achieving better mutual cooperation and exchange of experience of the police, CSR and other subjects in the community.

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POLICE CULTURE AND PROCESS OF INTEGRATING WOMEN IN THE POLICE[1]

Teaching Assistant **Danijela Spasić**, MA[2]
Associate Professor **Goran Vučković**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Gender issues within the police organisation, personnel structure and police culture have only recently become the subject of detaild academic research. There are still relatively few culture studies dealing with cross-analysis of the position, role, perspective and barriers to inegration of women police officers. Available studies mostly compare the experiences of Great Britain and the United States of America.

This paper is of analytical nature. Its hypothetical basis starts from conceptual determinants of the notion of police culture and the objective and subjective barriers to the integration of women into the police based on that culture. The subject of the research is the experience (barriers, opportunities and challenges) of the women employed in the police during the process of their integration and acceptance in a male dominated work environment in different parts of the world: America, Japan, Canada, India, Ukraine. The research findings confirmed that the woman employed in the police, primarily the uniformed police, are exposed to many stressful situations, challenges of the specific police tasks and to various forms of discrimination. The following are recognized as the sources of discrimination: hostile work environment with a steady bases of police culture, built up for decades, and various forms of harassment.

The analysed results are presented as illustrative trends, not as a definitive findings.

Keywords: masculinity, police culture, women, integration, police.

INTRODUCTION

In the predominantly masculine environment most men show, at least at times, extremely hostile attitude toward women, manifested as inhospitality, withholding information, sabotage, mobing, sexual harassment, etc. Slightly less extreme rejection is expressed through various forms of labeling women as outsiders including the relationship full of sexual insinuations, a paternalistic attitude and other degrading relations (ridicule, distrust, mocking, etc.). [3]

Through paternalistic treatment women suffer the negative consequences of subordination, although they do the same tasks as men, even though they are qualified the same as them, and although they invest the same amount of effort and knowledge into work as men, masculinity does not allow women to progress, because they are perceived as less capable, and less valuable. Men in male-dominated collective tend to behave towards women through the lens of disguised sexual insinuations, either verbally or through open conditioning as the cost of affirmation, keeping the position or advancement. [4] Propensity to exert dominance in the male collectives is a part of musculin cultural form, no matter whether the domination is manifested in relation to women or in relation to men. In almost all professions dominated by men, the desire to maintain the relationship of subordination is very firmly rooted. Although men tend to form an informal system of relationships at work and outside it, constant presence of authoritarianism and subordination is, nevertheless, a part of the musculine structure of relationships.

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2 Corresponding author, *danijela.spasic@kpa.edu.rs*
3 Tomić, M., Spasić, D. (2010) Maskulinitet u profesijama. *Antropologija: casopis Centra za etnoloska i antropoloska istrazivanja,* 10, 1, 95-110.
4 Padavic, I., Reskin, B. (1990). Men's Behavior and Women's Interest in Blue-Collar Jobs. *Social Problems,* 37, 4, 613-628.

POLICE CULTURE

The police is traditionally a male profession. The following are recognised as the objective barriers to the entry of women primarily into the uniformed police, which has traditionally been destined for men: the determination of the police as an organisation and human resource system, which, performing its functions, can also use the means of coercion, and the basic characteristics of police (masculine, macho) culture which has been formed for centuries. Today there are a number of unexamined assumptions underpinning beliefs about the roles of men and women, their abilities and values. Preserving these beliefs is also helped by the prevalent stereotypes of the dominant characteristics of the two sexes according to which men are rational and women are emotional; men cope with crisis situations better than women and are able to perform difficult and dangerous tasks, while women are content with simple repetitive tasks; men are active, and their superiority commands respect, while women are passive and cannot command. In addition, these beliefs are learned and are the consequence of generational transmission.

The woman within the civic civilization is defined, accepted and recognized only to the extent in which she exists and acts as a bearer of her sexual and biological functions provided by the nature. So, a woman is convinced that the necessity of her position is natural. What is characteristic for professions dominated by men is the lack of women and their low numbers, and especially their exclusion from the highest positions on the professional ladder. Despite the increased participation of women in the labor market, over the past few decades most of them are expected to have a profession and not a career, which is reserved for men.

In order to maintain the masculine culture in a profession such as police, the processes that contribute to maintaining low rates of entry of women take place. There is no doubt that the elements of self-selection are present, because if the profession is seen as typically male, then a woman who wants to do that work is ready in advance for a number of difficulties and problems in the course of her career.

In accordance with the organisational and functional specificities of the police, police culture determines the behavior of police officers on the job and off the job.[5] It represents a certain set of values, attitudes and beliefs that officers adopt in relation to their job, management, certain categories of citizens, courts, law and various social phenomena relevant to their work. Police culture is particularly emphasized by the feelings of social isolation, job risks, specific powers and responsibilities, the necessity of mutual solidarity in the common actions, frequent contact with anti-social behavior and certain types of people, the internal system of training and professional knowledge acquired in practice, the nature of information used on the job and the like.[6]

According to Nickels, specificities related to the police profession and define its professional culture are identified as: danger, the possibility of legitimate use of force, discretionary power, detachment of police officers from the citizens and general public, the bureaucracy, shift work, routine contacts with „problem people" and antagonism between police officers and management.[7]

Current research on police culture tend to support one of the two theoretical schools. According to one, police culture is traditionally perceived as a professional phenomenon and includes all officers. However, other studies are focused on identifying different types of police officers and officials, and the forming of their subcultures, which are connected and as such form a professional police culture.[8] Regarded as specific professional phenomenon, the police culture in most studies is seen as a byproduct of some standard and largely unchanging aspects of contemporary policing.[9]

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5 Spasić, D. (2011). Police Culture and Gender Identity. *Western Balkans Security Observer* 6, 25-35.

6 Milosavljević, B. (1997). *Nauka o policiji* (*Police Science*). Belgrade: Policijska akademija (Police Academy).

7 Nickels, E. (2008). "Good guys wear black: uniform color and citizen impressions of police", *Policing: An International Journal of Police Strategies & Management,* Vol. 31, 1, 77 – 92.

8 Paoline, Eugene A. III (2004). "Shedding Light on Police Culture: An Examination of Officers' Occupational Attitudes." *Police Quarterly*, 7, 2, 205-236. p. 205

9 See also: Niederhoffer, Arthur.(1969). *Behind the Shield: The Police in Urban Society*. Garden City, N.Y.: Anchor Books; Prenzler, T. (1997). "Is There a Police Culture?" *Australian Journal of Public Administration*, 56,4, 47-65; Van Maanen, J., & Barley, S. R. (1985). Cultural organisation: Fragments of a theory. In P. J. Frost, L. F. Louis, M. R. Louis, C. C. Lundberg, & J. Martin (Eds.), *Organisational culture* (pp. 31 – 53). Beverly Hills, CA: Sage; Westley, W. A. (1970). *Violence and the police: A sociological study of law, custom, and morality*. Cambridge, Massachusetts: The MIT Press.

Some other theoretical standpoints try to depict the police culture in a negative way, by looking at this concept through the lens of adaptation to hostile working conditions. In this regard, police culture is defined as a comprehensive set of beliefs and behaviours shared by all police officers, which is built through socialisation and professional solidarity. [10]

In these theoretical assumptions police officers are presented as an isolated group of cynical and authoritarian people who have low self-esteem and a sense of „receiving" little respect. [11] Police culture is regarded here as a social problem incompatible with changes and progress, as institutional pathology of the innate human weakness and corrupt environment. This formulation was the guiding idea of many early works and police studies[12], but also the basis for wider political pressures in the postwar period, to increase the degree of transparency, accountability and passing regulations governing the work of police.

The view according to which police culture prevents expression of emotion is important for the entry of women into the police system and their integration into professional police work environment.

Pogrebin and Poole (1991) [13] list five reasons why they believe that the police inhibit personal and other expressions of emotion:

1) Emotions make people feel uncomfortable;
2) Police repress emotions for fear of being seen as incompetent;
3) Police repress emotions for fear that their partners do not think they are unreliable.
4) Police suppress emotions because of looking up to "macho man";
5) Police officers do not want to create a resemblance to the "social workers" prone to express emotions or to talk about them.

In other words, to be equated with the "social worker" means loss of status. Many researchers have recognized the tendency of police officers to suppress emotional expression as a coping mechanism. [14,15] However, Jermier et al., in a study about 208 police officers employed in small towns (96% of the total police force) found a very strong link between expecting violence (fear) and exposure to violence. [16]

WOMEN AND POLICE WORK: CHALLENGES

Research in the differences of degree of the experienced stress of uniformed police officers and detectives while performing operational tasks, showed that men experience higher levels of stress during arrests of violent persons in situations of extreme violation of public peace and order. [17] Women police officers experience stress due to discrimination and various prejudices expressed by their male colleagues, but also when working with victims of violence and sexual offenses, as well as during the repetitive tasks. [18] The men reported to have a higher degree of stress when performing tasks in isolation, and when they are unable to plan their vacations. Women reported that they experience stress during every arrest of a violent person, when notifying relatives of those killed, as

10 Crank, P. John (1998). *Understanding police culture*. Cincinnati, OH: Anderson Publishing. Skolnick, J. (1994). ``A sketch of the policemen's working personality", in Justice without Trial: *Law Enforcement in Democratic Society*, 3rd ed., New York,NY: Wiley, pp. 41-68.

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well as when working with victims of violence. [19] Gender differences also exist in what the newly recruited policemen and policewomen experience in the first year on the job. Out of ten traumatic experiences during the year, men mostly experienced physical assault, while women most often experienced various forms of sexual harassment. Women in the traffic police feel the highest degree of anxiety, depression and aggression, because, every day, in traffic patrol or during a traffic regulation, they are subject to various comments or actions of the participants in traffic, primarily men. [20]

During the research of gender and ethical aspects of social interaction of police officers, women reported more negative interactions, especially related to verbal harassment, sexual harassment and slander. Women also reported that they participate more in social networks, particularly when it comes to members of related organisations. However, the data show that they have a lower percentage of close friends who work in the police. Finally, women have more family support to do police work. Research on the degree of suicides among police officers during the nineteen years, 1977-1996, established that the total number of suicides, of which there were 80, more men commited suicide than women (73 vs. 7). The suicide rate of women officers was nearly four times the suicide rate of the general population during this period (13.1% on a sample of 100,000 interviewees compared to 3.4% of suicides in the same sample). Therefore, we conclude that "there is much higher probability for female police officers to commit suicide, than for women in general to do it." [21]

WOMEN IN POLICE: EXPERIENCE AROUND THE WORLD

Women from police services around the world, primarily those in the uniformed police, have been facing the same stereotypical attitudes within the police organisation for decades.

India: From the late 1980's, a larger number of women have entered the Indian uniformed police, mainly through the Indian Police Service system. Women police officers were employed for the first time in 1972 and since then, number of women who hold key positions in various state police organisations has increased every year. However, their absolute number, regardless of rank, is small (29%). Women in uniformed police and women employed in the secret police are mostly deployed in New Delhi, as members of the Anti-Eve Teasing Squad, the squad that fights against sexual harassment of women. About 80 women police stations were founded in India, which bear the main burden of the fight against gender-based violence in this country, primarily domestic violence. [22]

Canada: The number of women police officers in police services across Canada continued to rise in 2011, while the number of male police officers reduced. There were 285 more women officers in 2011. than in 2010, while the number of male police officers was reduced by 97. The rise in the number of women officers recorded in the last few years is a continuation of long-standing trend. For example, in 2001. women accounted for 14% of all officers, and by 2011. this ratio had risen to 20%. The presence of women officers is particularly evident in the ranks of senior non-commissioned officers and senior officers. Over the past decade, the percentage of women officers in these ranks has nearly tripled, and the proportion of women in the rank of police officer has risen from 18% to 22%.

In the country interior, Quebec and Ontario have the highest percentage of female police officers. In contrast, Manitoba, New Brunswick and Prince Edward Island have the lowest proportions among the provinces. As in previous years, the proportion of female officers were lower in the territories than in the provinces. [23]

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19 Wexler; J.G. & Logan, D.D. (1983). Sources of Stress Among Women Police Officers. *Journal of Police Science and Administration*, 11, 1, 46-53.

20 Symonds, M. (1970). "Emotional hazards of police work". *American Journal of Psychoanalysis*, 30, 155-160. Bloch, P. & Anderson, D. (1974). *Policewomen on Patrol.* Washington, DC: Police Foundation. Martin, S. (1990). " Outsider within" the station house: The impact of race and gender on black women police. *Social Problems* , 41, 3, 383-400.

21 Hem, E., Berg, A.M. & Ekeberg, Q. (2011), "Suicide in Police—A Critical Review". *Suicide and Life-Threatening Behavior,* 33, 2, 224-233.

22 Verma, A. (1999). Cultural roots of police corruption in India. *Policing: An International Journal of Police Strategies & Management,* 22,3, 264-278.

23 *Police Resources in Canada*, 2011, http://www.statcan.gc.ca/pub/85-225-x/2011000/part-partie1-eng.htm, last accessed on 15.01.2013.

Japan: Law enforcement in Japan is provided by the prefecture of police under the supervision of the National Police Agency (NPA). NPA is the head of the National Public Safety Commission, which ensures that the Japanese police is apolitical body and without direct executive control of the central government. Their work is verified by an independent judiciary and monitored by the free and active media. Since 2010 the police force had about 291,475 personnel. NPA had a total of 7,709 members with 1,969 police officers, 901 imperial guards and 4,839 civilians. Prefectural police had a total of 283,766 employees, with 255,156 police officers and 28,610 civilians. Across the country, the police forces employed approximately 14,900 female police officers and about 11,800 women civilians. [24]

Ukraine: Since its founding in the early nineteenth century, the police have been and remain a profession dominated by men and the service is clearly linked to masculinity. [25] Police in Ukraine is no exception. Although 54% of the Ukrainian population are women (State Committee of Statistics of Ukraine, 2000), and where women make up 52% of the economically active population[26] (Lavrinenko, 1999), they make up only 8% of the Ukrainian militia (Ukrainian Ministry of Interior, 2000).

This compares with 14.3% in the USA and 13% in the UK (Cok, 1996; Brovn, 1998). In addition, compared with their male counterparts, Ukrainian women officers generally have lower ranks, do more paperwork and logistics work. For example, 65% of all employees on issuing passports, visas and registrations are women, as are 43% of investigators and 41% of employees who work in the Human Resources Department. Most young women are privates, only 7% reaches the lieutenant colonel rank, 1% the colonel rank, and no woman has the rank of general (Ukrainian Ministry of Interior, 2000).

USA: In the 1970, only two percent of all police officers were women, but already in 1991, nine percent of police officers are women (Statistics Bureau of the Ministry of Justice, 1993). At executive and managerial levels of the police, we find very limited representation of women. Less than two percent of the police (1.4%) in the very top echelon of the uniformed officers are women. In the lower ranks (from lieutenant to sergeant) between 2.5% and 3.7% are women.

Today, in New York police, 15% of all uniformed officers in police departments are women, but only 9% are staff sergeants, 6% are lieutenants, 3% are captains and 4% have the rank above captain. Research showed that women in the police force are not easily accepted by their male colleagues, their supervisors, or their own female colleagues in the police force. Women are regarded with skepticism and as inferior by their male counterparts, despite the fact that women did police work more than a hundred years ago. The public, however, had much more positive assessments of the work of women in the police, often welcoming their presence. In recent years, the acceptance by the public has contributed to the increase in the number of uniformed women police officers on patrol in the streets. [27]

PROCESS OF ACCEPTANCE AND INTEGRATION: BARRIERS AND LIMITATIONS

As numerous studies all over the world have shown, the police profession implies the environment characterized by a large impact on the personality of police officers, authoritarian orientation among officers, conflict of roles, alienation and emphasised awareness of power over others. [28] Such an environment as traditionally male is burdened with many forms of discriminatory behaviour against women

24 *Law_enforcement_in_Japan*, http://en.wikipedia.org/wiki/Law_enforcement_in_Japan, last accessed on 13.01.2013.

25 Sutton, J. (1996). "Keeping the faith: women in policing: a New South Wales perspective", paper presented at the First Australasian Women Police Conference, Sydney, July.

26 Lavrynenko, N. (1999). *Zhenshchina: Samorealizatsija v Semje I Obshchestve (Gendernyj Aspect)*, Kyiv.

27 Price, B.R. (1996). Female police officers in the United States. *POLICING IN CENTRAL AND EASTERN EUROPE: Comparing Firsthand Knowledge with Experience from the West*, College of Police and Security Studies, Slovenia.

28 Verma, A. & Das, D.K. (2002). Teaching police officers human rights: some observations. *International Journal of Human Rights*, 6,2, 35-48. Gibbs, P. and Phillips, H. (2000). The History of the British South Africa Police 1889-1980, Something of Value, North Ringwood. In: Goldsmith, A.J. (ed.) (1991). *Complaints against the Police: The Trend to External Review*, Oxford: Clarendon Press. Reiser, S. (1983). Cultural and political influences on police discretion: the case of religion in Israel. *Police Studies*, 6,3, 13-23. Hovav, M. & Amir, M. (1979). Israel police: history and analysis. *Police Studies*, 2,2, 5-31.

employed in it. All forms of discrimination, be it verbal or physical, based on stereotypes and/or prejudices, have their origin in the deeply rooted understanding of gender differences and defining of gender identities in traditional patriarchal socialization. In the research, through informal conversations with women working in the police force, mainly in uniformed police, two main sources of discrimination are identified: *hostile work environment* (which consists mostly of men) with a steady basis of police culture built for decades and *various forms of verbal and sexual harassment*.

Hostile work environment

Hostile work environment encompasses a wide range of verbal and nonverbal behaviour that favours offensive, hostile and degrading attitudes about women. It is manifested through inappropriate jokes by the colleagues, isolation, physical attacks, and denial of performed tasks, ie, the so-called female tasks. At the same time, the position and role of women is defined as the position of the "outsider" within the police culture. [29] This is supported by the fact, confirmed in numerous studies around the world, that the police officers themselves-the vast majority of them (sometimes even around 95%), state that they, personally, would never have accepted the employment of women in the police if it was not for the political, that is, external pressure to do so. [30] Many of them justify this attitude stating that they are often in situations to have to help their female colleagues on patrol and to rescue them from the "dangerous situations" because they themselves are not capable of protecting themselves. [31]

In addition to the resistance of male colleagues, women employed in the police are faced with the "glass ceiling" in terms of promotion and advancement, as a form of discrimination, ie, depreciation of their work and professional skills, qualities and achievements. This deficiency directly causes new barriers for younger women police officers and can stimulate their feelings of isolation in the police organisation. Even women who have achieved personal promotion in their careers, show little or no interest in achieving a better status in the police organisation. Most commonly stated reasons for this are: obligations to family and child care, intentional avoiding of the "glass ceiling" and negative experiences with previous attempts of promotion.

The potential for isolation and discrimination exist in greater extent in the rural police outposts, where the presence of women in the uniformed police is minor compared to police stations in urban areas. These conditions also refer to the lower levels of the structure of police ranks.

Women employed in the police force in the world have accepted working segregation as real, ie, the division into typical men tasks and specific "women tasks". They are, in great majority, allocated to jobs that deal with children and women as victims, or administrative duties, that is, the jobs that make their status inferior.

Verbal and sexual harassment

Various forms of verbal and/or sexual harassment include situations in which getting and/or keeping a job or some terms of employment are conditioned by the provision of sexual favors or other forms of sexual activity. One large study[32] that involved 804 women - police officers from 35 countries in Europe and the Americas, found that 77 percent of women in the sample reported sexual harassment by male colleagues. The study also found that women officers considered harassment by male colleagues to be a larger problem than the violent encounters that they experienced while they were on patrol.

Fairchild, E.S. (1988). *German Police: Ideals and Reality in the Post-war Years*. Springfield, IL: Thomas. Dick, P. & Jankowicz, D. (2001) A social constructionist account of police culture and its influence on the representation and progression of female officers: a repertory grid analysis in a UK police force. *Policing: An International Journal of Police Strategies & Management*, 24,2, 181-199.

29 Martin, S. (1990). " Outsider within" the station house: The impact of race and gender on black women police. *Social Problems* , 41, 3. 383-400.

30 Balkin, J. (1988). Why policemen don't like policewomen. *Journal of Police Science and Administration*, 16,1, 29-36.

31 Vučković, G., Spasić, D. i Antić, T. (2011). Povezanost morfoloških karakteristika i tačnost upotrebe pištolja kod žena policajaca u Srbiji (Correlation of morphological characteristics and accuracy of use of weapons of female police officers in Serbia). In: Mijalković, S. (Ed.), *Suprotstavljanje savremenom organizovanom kriminalu i terorizmu*, (druga knjiga), (*Opposition of modern organized crime and terrorism,* (second book). Kriminalističko-policijska akademija, Beograd: (Belgrade: Academy of Criminalistic and Police Studies), pp. 27-43.

32 Brown, J. & Heidensohn, F. (2000). *Gender and Policing: Comparative Perspectives*. New York, NY: St Martin's Press.

In these circumstances, many male officers in the research said they deliberately and consciously avoid to accept women into their working environment, for fear that they could be charged with some form of sexual harassment. [33]

Defense mechanisms and acceptance

In order to overcome various forms of discrimination and/or rejection, that is to acquire and maintain their status, in a situation where they do not use the existing legal possibilities, women police officers often have to sffirm themselves in the implementation of power and authority in other ways:

1) by demonstration of force;
2) by achieving the titles or ranks which demanded respect.

Some of the participants of the survey confirm that only after ten or more years of working in an environment and constant resistance, they felt accepted by their male colleagues. They define acceptance as less open discrimination and harassment by male colleagues or other women, as the ability to achieve high ranks, but also through less visible signs of change, such as uniforms and vests designed specifically for women.

Absurdity also exists when it comes to relations between the tasks they perform and the marital status of women police officers. All those who have managed to do the so-called „male jobs", are mainly unmarried or have no children. By comparison, women without a family feel acutely isolated within the accepted police culture, many because of the relationships that are established only with colleagues at work. Outside these frameworks and the relationships they do not have friendly relations with persons of other professions. Women who have sucessfully fought off different types of resistance in a police environment, connect with others outside the police work environment and are less burdened by the values and norms of the police culture.

Promotion

The possibility of promotion of women, in their personal opinion, is directly correlated to various forms of discrimination, which is reflected in the work on the night shift, which requires a change in lifestyle, or to fear, that is, the risk of isolation and harassment. Promoting women is also in a negative relation with family responsibilities and child care. However, in urban police stations and outposts there is a greater potential for the promotion and advancement of women, since there already are a number of women officers and women in leadership positions, in positions of responsibility and administrative structures. It also means fewer opportunities and more restrictions on women working in rural law enforcement agencies. This „working environment" and a professional environment also cause a higher percentage of stress, depressive behaviour and other psychosomatic illnesses. Faced with this situation, many of them voluntarily „deprive" themselves of any promotion or advancement opportunities, supressing personal enthusiasm.

CONCLUSION

In a number of studies that have attempted to identify the forms of discrimination against women employed in the police, women police officers testified about a wide range of stereotypes which burdens their position within the police organisation. However, after a 50-year battle for equal opportunities, women officers have described a number of divergent behaviours in their relations with the public, which included more empathy and communication.

In defining specific forms of disagreement and differentiation, women stressed not only that they are often isolated and discriminated against by their male counterparts within the organisation, but also often by female colleagues who had integrated and who do not accept cooperation in doing the police work. [34]

33 Dick, P. & Jankowicz, D. (2001). A social constructionist account of police culture and its influence on the representation and progression of female officers: a repertory grid analysis in a UK police force. *Policing: An International Journal of Police Strategies & Management,* 24,2, 181-199.

34 West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society, 1,* 125-151.

Gender balance is the need and necessity of quality police organisation. In order to achieve this, it is necessary to conduct and implement active policy to motivate women to work in the police and to promote the police profession, but also to raise the quality of the process of integration of those women who have already joined the police organisation. [35] This is not just the responsibility of women. Now it is up to the management (who are mostly men) to strengthen and implement this policy. Only then can the policy of „silence" as a phase in the development cycle of the police organisation be broken, which will form the basis of a police organisation in which „quality through equality" will be the dominant paradigm.

The potential for lasting change in the development of the police will be evident in the extent to which women manage to take great steps in achieving a high rank, breaking down barriers and prejudice and providing diverse and broad prospects for future generations of women police officers.

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MONITORING OF LEGAL PROCESS PERFORMANCE AND CONTROL OF POLICE OF BRCKO DISTRICT IN BOSNIA AND HERZEGOVINA

Halid Emkic, Mr. Sci.
Police of Brčko District of Bosnia and Herzegovina

Abstract: Modern democratic society, as an entity and the holder of the domestic and international law, requires the need to establish systems and mechanisms through which, in the extreme, it supervises and controls the work of the police. Here it is necessary to bear in mind that, especially in recent times, the country has been torn between the respect for human rights and the guarantee of individual freedoms and rights of citizens and effective protection of state interests.

All of the above result in the need to establish clear procedures through various forms and mechanisms of control over the holders of powers who, in their work apply coercion - force which should be applied lawfully, properly and professionally and how they are responsible for the illegal unprofessional actions and abuse of their authority.

Certainly, such mechanisms should not interfere with the operation and effectiveness of police to be at any given moment in a lawful, proper and professional way to oppose all forms of threat to security in the country.

Lawful, proper and professional execution of police duties and tasks and responsibilities is required for the execution of a basic question of the present structure and organization of police and law enforcement agencies.

This paper will point out the legal and procedural characteristics of the supervision and control of Brcko District Police, which are also implemented in order to establish a strategic and operational, and the tactical level of operations and procedures, and performing police duties and tasks.

Keywords: police, human rights, monitoring, control.

PRELIMINARIES

In Bosnia and Herzegovina there are police agencies formed at the state and entity level, the cantonal level in FbiH, and on the level of Brcko District.[1] In the Brcko District of Bosnia and Herzegovina as a single administrative unit that has its own legislative, executive and judicial power, the affairs of the Interior are performed by Police of Brcko District of Bosnia and Herzegovina. Police carries out activities in accordance with the Constitution of Bosnia and Herzegovina, Brcko District, the laws of Bosnia and Herzegovina and the Brcko District. Statute of the Brcko District of Bosnia and Herzegovina, as well as the highest legal act of the Brcko District of BiH stipulates that: the District has its own police force, the Police District shall perform all police functions as provided by law, the Police District shall provide a safe and secure environment for all persons in the district and respect internationally recognized human rights and fundamental freedoms as provided by the Constitution of Bosnia and Herzegovina to the District Police which provides unrestricted freedom of movement of persons, vehicles and goods throughout the district, and that all employees in the police district are in public service and as such responsible for their own actions. [2]

According to all of the above, in the Brcko District of Bosnia and Herzegovina, there has been adopted legislation which regulates the operation of the Brcko District Police as an organization, and the work and conduct of its members. Thus, the law within Police of the Brcko District of BiH[3]

1 As police agencies in BiH policing activities and tasks independently enforced: police agency under the Ministry of BiH (State Investigation and Protection SIPA, Directorate for Coordination of Police Bodies, Agency for forensic tests, police support agency, the Border Police) Ministry of Internal Affairs of the Republic of Serbian, Federal Ministry of Internal Affairs and the Cantonal Ministry of Internal Affairs and the Police of the Brcko District.

2 Statute of the Brcko District of BiH (Official Gazette of the Brcko District of BiH, No. 17/08)

3 Law on Police of the Brcko District of BiH (Official Gazette of the Brcko District of BiH, No. 31/09 and 60/10 and 31/11)

and the law within Police Officials of Brcko District,[4] directly prescribe the operation to the police in general, and the operation and behavior of police officers. In accordance with these legal provisions, the Act provides that the district police are an Institution that is operational, independent, and that the Chief of Police is the police and manager of the Police.

Using his powers arising from the aforesaid laws, Chief of Police shall issue regulations: instructions, orders, etc., which immediately direct and regulate certain issues important for the work and performing tasks of police officers. In this regard, there has been brought Regulation within the Brcko District Police, in order to classify jobs in the Brcko District Police, which prescribes their duties and tasks, as well as other laws that allow for smooth functioning and operation of the police and police officers.

As a specific police organization, Brcko District Police carries out operations on tactical, operational and strategic levels. Related to the work of the police, as well as within the police organization, there are several different supervisory and control bodies and mechanisms, directly or indirectly exercising supervision and control of the execution of police duties and tasks. Certainly, when we talk about the surveillance and control of the police, we should bear in mind that there are mainly the following types of police surveillance: (a) political control (which is conducted through the parliamentary body); (b) and civil control (which includes procedures for petitions from citizens); (c) internal control (i.e., control and process within the police). Apart from this, it is necessary to bear in mind that there are various institutions for the control of police work, such as (parliamentary commissions, ombudsmen, public information, etc.) (Simic, 2012:310).

For the purposes of this paper we will primarily talk about the specific organization of Brcko District Police, with special emphasis on the legal process characteristics of supervision and control over the work of the Police of the Brcko District, where we will discuss external supervision and control, or its political and civilian monitoring and control, and on internal control, which is implemented in the framework itself, in all segments of the specific organization of Brcko District Police

GENERALLY ABOUT THE SUPERVISION AND CONTROL OF THE POLICE

Considering the diverse literature on police work, it should be noted that in the past there have been various attempts, as well as enforcement actions of unlawful and unprofessional conduct of police duties when police in some ways "slipped" social surveillance and control and thus transformed into armed formations that implemented arbitrariness of individuals or groups, or raising themselves above the law and the state. Deviations from the law of specific and defined role in the work, contributions to society must establish various forms and mechanisms of internal[5] and external[6] oversight and control over the work of the police and its officers from the highest to the lowest levels of task execution.

In order to practice legally and fulfill police duties and tasks properly, it is necessary to have the same monitoring and control within the law defined as well as proper ways, and that such actions are undertaken in a manner that does not diminish, does not compromise and does not negatively affect the effectiveness and efficiency of the police work.

In their work police apply a number of legal acts (laws, ethical standards, regulations, instructions, advice and instructions, etc.) which should be complied with, and any violation thereof entails certain procedures for sanctioning and calling it on being responsible. If monitoring and control

4 Security Law on Police Officials of Brcko District of BiH (Official Gazette of the Brcko District of BiH, No. 41/07, 4/08, 36/09, 60/10)

5 As a conceptual definition of "control" in literature, there are a large number of definitions that reflect the different aspects of this notion. Thus, the criminological lexicon states that the "general supervision in terms of controls, monitoring something, account management and worry about something or someone." Boskovic, M. (1999:198)

6 Basically to control, it can be said that this term in the most general sense can be either a synonym for checking or for dominance over some individual, person, organization, territory, etc., that it's a phase management process which should assure that the all planned activities and results are actually realized; its essence consists of monitoring, which measures, evaluates and compares the planned and achieved business. The control system operates on the basis of feedback, while the primary object of control effectiveness (validity output) people who exercise in the use of resources within the organization." http://sh.wikipedia.org/wiki/Kontrola , 10.01.2013.

of police officers are not at an adequate level, then police officers commit criminal offenses, misdemeanors and violations of official duty, and police authorities "do not react" and take measures and actions for adequate prevention, suppression and sanctioning of such behavior. All of the above contribute to the weakening and increasing distrust in the police authorities and law enforcement bodies, and therefore, the country.[7]

It should be emphasized that when it comes to control of the police and their operations, the term means the same number of different mechanisms and procedures. In this paper, we do not intend to deal with the term surveillance and control. Here we monitor a broader process of permanent character, where control is performed within the framework of supervision and would have represented a special kind of interaction between the police and community that aims to harmonize with its policing role and eventual harmonization measure of responsibility for the established tolerances. Bearing in mind that when the monitoring of control is possible and achievable, but not effective enough (Milosavljevic, 1997:303).

Thus, supervision and control over the work of the police basically involves various forms of intervention by the authorities and internal units, with the aim of checking, at the moment of evaluation and intervention, the work of police officers, to police activities and tasks to be fulfilled in the way the law prescribes ethical standards in a defined manner.

In accordance with these monitoring and control of the police in this paper, we observe through the outer or external factors monitoring and control of the formal and informal means of control, and the internal monitoring and control, which can also be informal and formal.

Form of control	Means of control	
	Formal	Informal
External Control	1. Parliamentary control 2. Control of the government and other bodies of executive power 3. Nongovernmental entities 4. Judicial review 5. Control prosecution 6. Constitutional control 7. Ombudsman 8. Other assets	1. The public and public opinion 2. Media 3. Political Party 4. Inter-group and pressure groups
Internal Control	1. Hierarchical control 2. Institutional control 3. Disciplinary responsibility 4. Internal supervisor	1. First self-control 2. Second interpersonal control 3. Control of unions and associations 4. Processes of socialization

Chart of supervision and control (Milosavljevic,1997: 308)

External monitoring and control

Basically external supervision and control over the work of the police is established through the mechanisms by the legislative, executive and judicial powers, as formal means of monitoring and control (where control over these sets and role of the police, which is not an independent factor in the social process, and reflects the political will to force the government and the citizens, for the general welfare of society as a whole), and the public and public opinion, the media, non-governmental organizations as well as informal means of control (as offered to the citizens trust in institutions, and thereby creating a sense of a higher level of security).

Certainly the strongest and most concrete control is exercised through control over the parliament and the government to exert influence on the police and law enforcement agencies and ensure that they submit their reports and information to perform the tasks and duties that are established by some law or bylaw, and that they have been called for specific responsibilities.

7 Definitely it must be noted that the supervision of the police was introduced by a UN resolution in 1979, when it adopted the Code of Conduct and the officials responsible for the enforcement of law.

So, from all of the above it can be said that external factors (external) surveillance and control include:

1) Parliamentary oversight and control, (which is implemented by supervisory authorities or commissions);
2) Monitoring and control of the executive branch;
3) Monitoring and control of the court and the prosecution that is judicial supervision and control;
4) Ombudsman;
5) Civil oversight and civil control, (which includes procedures for petitions from citizens);
6) Oversight by the media (which includes initiating a process of inspection and testing irregularities that are advertised in the media).

Internal monitoring and control

Internal supervision and control involve monitoring and control that are performed within the police organization, and they include a series of measures and actions taken by managers in performing tasks. The role of internal control in the prevention, control and investigation of unprofessional behavior of police officers must and should be the most important, because within the police are the most direct observations of the behavior of their officials. Also control, as a rule, will be effective, if the police are capable and responsible leaders and if their work is transparent enough.

Internal supervision and control are basically implemented through: supervision and control by the head of authority, supervision and control by the direct supervisors of police officers from the unit for internal monitoring and control, through the disciplinary responsibility, as the formal means of monitoring and control, and informal means of control, such as self-control, interpersonal control, control of unions, etc. The work of the police through internal monitoring and control basically involves controlling the proper functioning and immediate action that the actions taken by police officers are in compliance with the law and with the rules of professional police procedures.

As a part of the internal control procedures implemented, there are internal reviews of complaints and grievances of the people when they find that the actions taken against them are not in accordance with the rules of police procedure. Citizens have the right and the possibility of the responsible bodies that may be part of the police or the police outside the system. When complaints are filed within the police, they can be made directly to a supervisor of police officers in a specific police unit, and can be submitted directly to the internal control unit. The superior police officers conducting proceedings verify the complaints filed to the police. Also they can forward the complaint to the relevant unit of internal controls.

It is important to point out that the police officers, in order to prevent illegal acts or abuse official duties of their colleagues and managers, can themselves trigger internal control mechanisms and the implementation of internal procedures in order to establish unlawful and unprofessional execution of tasks. Every police officer is obliged to inform their immediate supervisor or the police or the Internal Control Unit of any unauthorized activities of their colleagues by which they violate legal regulations, professional duties or obligations or they violate human rights.[8]

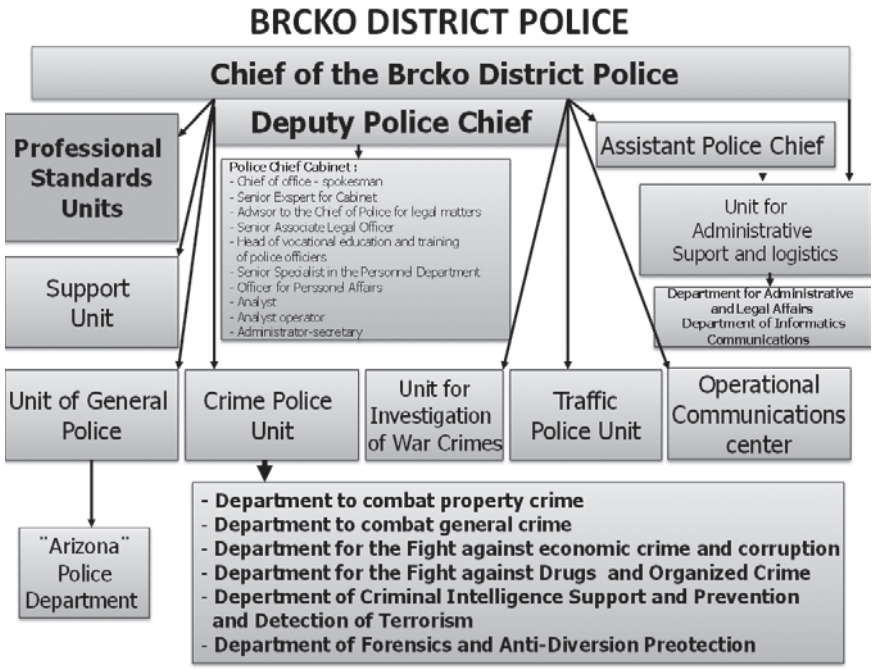
Certainly, the organs of internal control are obliged to investigate every allegation in the media or information that they receive in another way, if that information indicates that a police officer violated the law, professional duty, obligation, or any of the human rights of citizens. Upon such referral, the competent manager would have to initiate appropriate criminal or disciplinary proceedings (or both) in which the internal control over police investigate the case.

8 Stated a legal obligation for all police officers, as defined by the Code of Ethics

BRCKO DISTRICT POLICE, ORGANIZATION, ACTIVITIES AND TASKS

As previously mentioned, the affairs of the Interior in the Brcko District of Bosnia and Herzegovina, as a police organization, are performed by the police of Brcko District BiH.[9] The responsibilities of the Brcko District Police jobs are: operational, technical, administrative, legal and otherwise, and they perform the duties on tactical, operational and strategic levels. Brcko District Police, in accordance with the legislation have a legitimate right to use force.

Tasks and duties performed, and performing these operations, are regulated by the Law Brcko District Police BiH.[10] Police operational, technical, administrative, legal and other duties and responsibilities are executed through the competent organizational police units, which have their own internal structures and specialist departments.



Organizational chart of Brcko District Police

The basic organizational unit of the Brcko District Police

Brcko district police perform their competence and performance tasks through nine organizational units. Regulations on the organization and job classification in the Brcko District Police BiH,[11] prescribes the jurisdiction on the employees, describes their jobs and tasks.

Accordingly, the police units are:

– **Police Chief Cabinet** consisting of the deputy police chief, spokesman, education officer, legal adviser and coordinator of personnel departments;

9 Police of Brcko District is an independent multi-ethnic police organization in BiH which employs 305 staff and 261 police officers and 44 state officials and employees. A report on the work of the Police of the Brcko District of BiH for 2012.

10 Jobs and tasks of Brcko District Police are prescribed in Article 12 and 13 Law on Police of Brcko District

11 Rulebook for jobs in Brcko District Police, April 2008, and the Ordinance on Amendments Rulebook on internal organization and systematization of workplaces Brcko District Police, 2012.

– **Unit of general police** as the largest and most important unit through its police officers in the field directly execute tactical tasks and duties of protection of personal and property safety of citizens, taking measures to maintain public order, prevention and detection of crime and finding and catching the perpetrator, secures crime scene and physical evidence, undertakes the investigative measures to shed light on the crimes, leads the company's custody, polices public meetings, guards certain persons and objects, provides assistance to the authorities of the Brcko District of BiH in accordance with the law and other;
– **Crime Unit of the police** - they established an internal organizational units: Department for combating property crime; Department to combat general crime; Department for Combating Economic Crimes and Corruption, Department of the fight against drugs and organized crime and terrorism, the Department of Criminal Intelligence support and prevention and detection of terrorism Department of Forensic and sabotage protection);
– **Traffic police unit,** performs the duties of regulating traffic on the roads and control of drivers, vehicles and other traffic participants, the prevention and detection of crime and finding and catching the perpetrator.
– **Support units** that directly participate in the performance of tasks and protecting personal security of citizens and the protection of buildings and other property in the event of general danger or when the law and order deteriorated to a greater extent, as in cases of terrorist and other violent activities or armed rebellion, and provides complete support for all physical units in the performance of duties and tasks;
– **Profesional standard unit** whose primary goal is to raise the level of professionalism of police officers, as well as monitoring and control of the police officers;
– **Unit to investigate war crimes** in the District - under the supervision of the competent Prosecutor they organize and undertake operational and other measures to discover, research and document war crimes committed in the District,
– **Operational Communication Centre** is a unit that, among other things, coordinates the work of the police organizational unit continuously 24 hours a day and is responsible for the timely and efficient execution of works under the jurisdiction of the police, especially after hours;
– **Unit for administrative** tasks within that set of internal organizational units as a: Department for Administrative Affairs and Logistics, Department of Informatics and Communications.[12]

Neglecting the further elaboration and job responsibilities of organizational units of Brcko District Police, here we aim to show that the police units to its internal organization are under clear hierarchical control of the police chief or deputy chief of police, and that it is possible to use them against external and inner forms of surveillance and control work.

EXTRINSIC (EXTERNAL) MONITORING AND CONTROL OF BRCKO DISTRICT POLICE

As pointed out earlier, basically external supervision and control of the police are established through mechanisms defined by the legislative, executive and judicial powers, as formal means of monitoring and control, and the public and public opinion, the media, non-governmental organizations as informal means of control.

Monitoring and control of the legislature

When it comes to the Brcko District Police, primarily external supervision and control of its operations, as the legislator is done by the Assembly of Brcko District of BiH[13], in accordance with the Statute and the Rules of the District Assembly. The Assembly of the Brcko District of BiH is

12 The job descriptions which are performed by police units Brcko we can see in the Ordinance on the systematization of jobs in the Police Brcko District, April 2008.
13 http://skupstinabd.ba/ba/komisije.html

responsible to the Chief of Police of the Brcko District Police, who represents and manages the work of the Police. [14]

In the Assembly of the Brcko District fourteen parliamentary commissions operate, and the immediate impact and supervision of the Brcko District Police is conducted by two parliamentary commissions and the Commission for Selection and Appointment and Mandate and Immunity Commission and the Commission of Public Safety and Supervision of the Police. [15]

Commission for Election and Appointment and Mandate and Immunity Commission

Commission for Election and Appointment and Mandate and Immunity Committee meetings have direct control over the appointment and dismissal of the Chief of Police and his deputy, it is the appointment of the top management of police, and the Commission has assessed the merits of the allegations of conflict of interest and the chief of police and his deputy.[16]

Commission on Public Safety and Supervision of the Police

Committee which is exclusive responsible for the supervision of the Brcko District Police Commission, it is for public safety and supervision of the police, which consists of five members-representatives of the Assembly of the Brcko District of BiH, so that this committee monitors the work of the police district that relates to respect the rights of citizens under the Constitution of Bosnia and Herzegovina and the law; discusses issues relating to the alleged or perceived violation of the rights and freedoms of the citizens of the District Police, noted problems related to the work of the District Police and suggest measures for their removal, and perform other provisions of these rules and the decisions of the Assembly.[17]

The Independent Committee for the election of Chief and Deputy Chief of Police

In addition to the above Commission as a permanent body of the Assembly of the Brcko District, which has direct access and control and supervision of the Chief of Police and his deputy is the Independent Committee for the election of Chief and Deputy Chief of Police. So, the Independent Committee in accordance with the Law on Police of Brcko Disctrict of BH: announces a public competition for the position of Chief of Police and the Deputy Mayor and proposes: 1) a candidat for the Chief of Police and the Deputy; 2) dismissal of Chief of Police and deputies; considering a proposal: a) to dismiss the chief of police and the deputy before the expiry; b) Chief of Police for the dismissal of the deputy; 3) evaluates the Chief of Police.[18] An independent expert committee evaluates annual evaluation and assessment of Chief of Police of the District Assembly adopted on 31 March 2013 for the previous year and the evaluation of the audit report submitted to the police

14 Law on Police of Brcko District in Article 21 (Management of Police) provides that the Chief of Police: 1. represents and manages Police work; 2. that the Chief of Police is responsible for his work in the Assembly District; 3. Chief of Police carries out the operational aspects of policy District related to public safety by the mayor with the consent of the District Assembly; 4. District Assembly and Mayor cannot issue a direct order of the chief of police operational matters; 5. Chief of Police has one deputy; and 6. That Deputy reports to the Chief of Police. In addition, Article 6 provides that the Chief of Police of the District submits the annual written report on the work of the police.

15 In Brcko District Assembly there are permanent committees acting: Legislative Commission, the Commission for the budget, the Commission on Human Rights, the Commission on Economic Development and Agriculture Committee, the selection and appointment and mandat and Immunity Commission, the Commission for Administration and Finance Committee of Public Safety and supervision of the police, the Commission for labor, Health and social Welfare, the Commission of Education, Sports, Culture and Cooperation with religious Communities, the Commission for monitoring the work of the Government, institutions and petitions of citizens of the District Committee, the communal, public service and the protection of the environment, Commission to monitor the implementation of the Rules, the Commission for the implementation of the Code of Conduct of the Assembly of representatives of the Brcko District.

16 Commission for Election and Appointment and Mandate and Immunity Commission: a) oversee the application of the laws of Bosnia and Herzegovina and the District relating to the election of representatives; b) evaluate nominations submitted by the representatives of the election or appointment of all officials elected by the Assembly, or appointed; c) inform the Assembly on the proposal of the mayor on the appointment and dismissal of the police chief and his deputy; d) inform the Assembly about the appointment and/or dismissal of members of the government that are appointed by the Mayor; e) evaluate the merits of the allegations of conflicts of interests of members of the Assembly, the members of the District Government and the Chief police and his deputy in accordance with Article 26, paragraph 3 of the Statute and Article 17 of the District of the Rules; f) perform other activities determined by these Rules and the decisions of the Assembly, http://skupstinabd.ba/ba/komisije.html

17 http://skupstinabd.ba/ba/komisije.html

18 See Article 27 Law on Police of Brcko District

chief and the mayor of Brcko District, for information purposes.[19] In addition, the Independent Committee shall initiate the dismissal of Deputy Chief of Police, or if: the conditions for termination of employment, in the process of applying for the vacancy listed false information, their work is evaluated annually rated "insufficient", has confirmed the indictment against them for criminal offense other than criminal offenses related to traffic safety committed negligently; their final disciplinary sanction imposed for a serious breach of official duty, no longer meet one of the conditions for appointment to the position.[20] As one of the specific actions that the Parliamentary and executive Brcko supervise and control the work of the Police Act and mandatory legal information and reporting to the mayor and the District Assembly on the work of the police, where the police chief and the mayor shall submit to the District Assembly: a) an annual written report about police work; and b) information of importance to safety in the District every six months, or more frequently if the chief of police or the mayor deemed necessary. [21]

Supervision and control by the executive authority

Executive authority in the Brcko District BiH is the Government of Brcko District BiH. The Government is made of Mayor, deputy mayor, main coordinator and the chiefs of the departments.[22] When we talk about supervision and control of the work of Brcko district BiH police, we could look executive authority on this as an indirect supervision and control which is provided by the Government and the Mayor in the frames of the law. Here control and monitoring can be viewed primarily by consenting to the adoption of certain legal acts and their referral to the Assembly, giving consent to the adoption of certain laws[23], approving budgets and financial resources necessary for police work,[24] real-time monitoring of police reporting by the Chief of Police to the Mayor of Brcko District.[25] Certainly in the finance field, by certified auditors government directly controls the energy resources of finance police and thus performs the direct supervision and control in the field of finance approved.

The Office of the Government acts upon appeals and complaints from citizens of the District Government, to which citizens and legal entities can submit complaints, requests and suggestions related to the work of the Police and police officers, which in turn is a kind of civilian oversight over the work of the police or "other forms of influence society to perform police functions" (Milosavljevic, 1997:303).

Supervision and control by the judiciary

When we talk about the judicial supervision and control of Brcko District Police, we can say that it is primarily through direct supervision and control of the process acts as the execution of police duties and tasks as defined in the Criminal Procedure Code of the Brcko District and the Criminal Code of Brcko District. In Brcko District, Judicial Commission of Brcko District acts as an independent judicial authority. Within the judiciary act: 1. Prosecutor's Office of Brcko District; 2. Basic Court of Brcko District; and 3. Appellate Court of Brcko District.

19 ibid, Article 48
20 ibid, Article 50
21 ibid, Article 6
22 See, Article 3 Law on the Government of the Brcko District of BiH (Official Gazette of Brcko District, No. 19/07, 36/07, 2/08, 17/08, 23/08, 14/10, 38/07, 28/12)
23 In accordance with Article 20, paragraph 1 of Police Act, the District Government, at the proposal of Chief of Police gives assent to the Ordinance on the internal organization and the Brcko District Police.
24 To the process of planning, drafting, adoption and implementation of the budget of the police as well as other issues relating to responsibility for the accounting, internal control, surveillance and the legality of disposal by public funds, there are provisions of special regulations in these areas.
25 Law on Police of the Brcko District of BiH, Article 6 (Information and Reporting Mayor and Assembly District) provides that the Chief of Police and the Mayor shall submit to the District Assembly: a) an annual written report on the work of the police; and b) information of importance to safety in the District every six months or more frequently if the chief of police or the mayor deemed necessary.

Informal means of external monitoring and control

As an informal means of external monitoring and control there are citizens who petition their criticisms and complaints in relation to creating a great work of the police, that triggered the internal mechanisms to prosecute illegal and nonprofessional police officers. Appeals by citizens on the work of police officers can be put in boxes that are placed in public places, can be made to the immediate superior of the organizational units, and direct professional standards unit, which implement internal procedures and checks merits of the appeal.[26] Also, the media, the public announcement of unprofessional conduct of police officers significantly affect startup checks and criminal allegations, or disciplinary prosecution, or forcing all employees to their jobs and tasks complete professional.

INTERNAL SUPERVISION AND CONTROL OF THE BRCKO DISTRICT POLICE

Overall focus monitoring and control at work in the police is primarily directed to take all actions, primarily preventive, the "narrowing" of space to police officers for any unlawful and unprofessional actions. Using the direct supervision of and use of technical devices (documented unprofessional behavior) obstruct and eliminate all factors that can lead to such behavior. This certainly implies an enhanced control and checking the operation in the field and in the workplace, and the internal procedures and the application of criminal and disciplinary procedures (sanctioning and forms of misconduct) and the imposition of sanctions, achieves the main goal of that sanction for all acts and all unprofessional behavior of police officers.

It is shown in this way to the police official who committed such offence, as well as all other police employees (and public) that the Police is determined for implementing the highest legal,ethic and professional standards.

Internal supervision and control of the police officers in the Brcko District Police conducted through several aspects of site supervision and work of police officers, as well as periodic execution of control tasks.

Essentially, internal supervision and control in Brcko District Police, is carried out through:

a) Surveillance and control of the Chief of Police, heads of units and other police officers;

b) Supervision and control of the manager of the police officers in the units;

c) Supervision and control of the unit in charge of internal control - the Professional Standards Unit;

d) Control of the Disciplinary Commission and the Police Board;

e) Self-restraint and control of trade unions as informal means of control.

a) Monitoring and control of the Chief of Police, heads of units and other police officers

Under regulations prescribed by the Chief of Police[27] jurisdiction, which, among other things, define that within the internal supervision and control, Chief of Police: organizes and provides lawful and effective functioning of the police, manages, directs and oversees the operational and other police activities, passes ordinances, internal command, orders, instructions, guidelines and other documents for the purpose of conducting business out in Articles 12 and 13 of this law; decides on the disciplinary responsibility of police officers to facilitate a breach of official duty, notify the mayor: the serious reports on the work of employees in the police, after conducting a preliminary investigations, the police suspended employees, organized a system of internal controls and inspections to supervise and coordinate the activities of organizational units and employees, establishing administrative and other technical commissions and working bodies that are tasked to perform specific tasks within the work of the Police; performs scheduling employees to more professional and efficient functioning of the police, supervises the work and makes an annual assessment of

26 Physical and legal entities to invest in the work of the police complaints, requests and suggestions of the Professional Standards, the Office of Appeals and complaints from citizens of the District Government and the Commission of the District Assembly for public safety and supervision of the police.

27 See Article 22 Law on Police of Brcko District, which provides "authority Chief of Police."

the deputy, according to evaluations: unsatisfactory , satisfactory, good, very good or excellent, and takes other measures to professional police leadership.

b) Monitoring and control of the manager of the police officers in units

Heads of organizational units combine and direct the work of primary and internal organizational units responsible for the timely, lawful, proper and well carrying out of the responsibilities of organizational units that are managed, allocate jobs on internal organizational units and direct executors, provide the necessary expertise in the work performed most complex matters from the organizational units they manage, and perform other duties as determined by their chief of police.

In Brcko police work basic organizational units manage:

a) Office of the Chief of Police - Chief of Police or his deputy;
b) Operational-Communication Center - Head Operations & Communications Center;
c) Unit of general police - Commander of the Unit;
d) Units of traffic police - Commander of the Unit;
e) Investigation unit - Head of Unit;
f) Units to fight a war crime - Head Units;
g) Support Unit - Unit Commander;
h) Professional Standards Unit - Head of Unit;
i) Unit for Administrative Affairs - Assistant Chief of Police.

Heads of organizational units at least annually perform appraisal of all police and civil servants, and thus influence the professional attitude towards the work of its employees and take measures and actions in cases of unlawful and unprofessional conduct.

c) Monitoring and control of the unit in charge of internal control - the Professional Standards Unit

As a formal means of control in Brcko District Police there operates an independent unit whose main task is to supervise and monitor police officers in the police - Professional Standards Unit. The primary goal of this unit is to raise the level of professionalism of police officers, as well as monitoring and control of the police, with special emphasis on the prevention of corruption of police officers.

With regard to the Professional Standards Unit in the execution of tasks to monitor and control the regularity and legality in the work of police officers in connection with abuse of official position, exceeding official powers and possible involvement in criminal activity, the unit conducts investigations and internal procedures to prevent and detect perpetrators of illegal activities and notifies the prosecutor and submits a report on the evidence gathered for the police, for which there is a reasonable suspicion that they committed a crime and acts according to the demands of the prosecutor proposes measures and actions as well as the results of implemented internal procedures of internal procedures and tests of accuracy of the allegations in the petitions and appeals the public about the actions of the police; conducts inspections of organizational units, individuals, civil servants and police officers, controls the performance of the duties of police officers in the field, proposes actions to detect and prevent irregularities, it is responsible for harmonizing regulations, instructions, internal commands, instructions and other documents issued by the police with applicable laws, carries out investigations and internal investigations to determine the regularity and legality of the use of force for the enactment of justification used force, and shall represent the disciplinary requirements in proceedings before the disciplinary bodies of the police or the District Government when it comes to claims against state employees, makes recommendations related to the training needs of police officers, presents the results of investigations carried out internal procedures and internal inspections of organizational units, individuals and control of the police in the field, oversees the implementation of the decisions and actions of police procedures, monitors the implementation of decisions and measures for improving the work as a result of internal procedures of conducted internal investigations and inspections, proposes measures and actions aimed at improving the work of the

police in order to strengthen the trust and cooperation of the police to the local community, to keep the prescribed records, performs other duties as determined by the police chief or his deputy.[28]

So, from all the foregoing it results that the Professional Standards Unit is the holder of internal supervision and control of the work of employees of Brcko District Police in all cases illegal and unprofessional conduct, implements internal procedures[29] to collect evidence for a criminal prosecution or disciplinary or refutation of the complaint or assumptions. It is important to note that the head of the Professional Standards and the prosecutor work together in disciplinary proceedings when determining liability of police officers.

d) Control of the Disciplinary Commission and the Police Board

The disciplinary responsibility entails the responsibility of police officers for violation of the duty which is made intentionally, especially when assigned tasks and activities are not carried out consciously and regularly, if you do not comply with the laws and regulations or codes of conduct in the service. If it is determined that such actions are not taken in accordance with prescribed procedures, police officers through the established disciplinary procedure are called to disciplinary liability, where under the established procedures and in compliance with all criminal procedural principles they are imposed disciplinary sanctions. In the Brcko District police for minor violations of official duty there are disciplinary sanctions imposed by the Chief of Police after the internal process of organizational units responsible for internal control. Disciplinary sanctions for serious breaches of duty are imposed by the disciplinary committee following a disciplinary procedure. Disciplinary commission is appointed by the Chief of Police, consisting of a chairman and two members, who are deputies. Certainly, through the disciplinary procedure and disciplinary sanctions there shall be monitoring and controlling of conduct and work of police and civil servants. In the analysis of supervision and control over the work of police officers within the police organization it is unavoidable not to mention self-contained and independent appellate authority-police committee, which is established by the Brcko District and appellate authority who has administrative authority prescribed by the police officers of the Brcko District of BiH, [30] the Law on Administrative Procedure of Brcko District and other substantive legislation of the Brcko District. Police Board shall review in the first instance, and other writings provide assessment of the evidence, the facts and the conclusions drawn from the facts, the exercise evaluation appeals as other proposals, requests and initiatives, proposed evidence, participate in the presentation of evidence, and then make a decision as collateral organ, which is finite in the disciplinary process.

e) Self-control and control of unions as informal means of control

As an informal means of internal control of the police officers there is certainly the union in terms of its work acts as a corrective to the individual actions of police officers. Certainly the most professional work is the basis for self-control and police officers who work in constant need to be in the forefront of the legal and ethical[31] performance of police tasks.

CONCLUSION

By the descriptive overview of mechanisms of external oversight and control of Brcko District Police in this paper we have tried to point out the legal and procedural part of monitoring and control features that are implemented by the legislative, judicial, and government, citizens and the media in the process of external control over the work of the Police Brcko District.

Besides depicting the internal organization of specific legal mechanisms which are shown here, there is primarily hierarchical control undertaken within the police organization.

28 Regulation on internal organization and job classification of Police of Brcko District, April 2008

29 Internal procedures for breaches of official duty is triggered on the basis of: citizen complaints, requests one or more employees in the police; requires immediate superior police officer. Section 119 Paragraph 1 Law on Police Officials of Brcko District.

30 See Article 144 to 146 Law on Police Officials of the Brcko District of BiH (Official Gazette of the Brcko District of BiH, No. 41/07, 4/08,36/09, 60/10)

31 See Code of Ethics and state police officers Brcko District Police

It is important to point out that these forms of surveillance and control cannot be viewed separately keeping in mind that the same interpenetrate, complement and basically make a unit. Solution acquisition would complement that eluded police surveillance and social control, and to serve the entire community. Certainly it is very important to point out that it is necessary to bear in mind that over emphasized supervision and control may inhibit professional development and execution of tasks. It is especially necessary to bear in mind that an individual or groups through the mechanisms of supervision and control may have the intention of mixing in the operational activities of the police and their incapacitation.

All previously presented leads us to the conclusion that the supervision and control of Brcko District police law and other regulations, framed and defined process for handling both action and monitoring mechanisms of the police and the mechanisms for monitoring and control within the police.

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GENDER INEQUALITY IN POLICE PROFESSION[1]

Associate researcher **Marta Tomić**, MA
Teacher of Practical Teachings **Suzana Talijan**
Professor of Professional Studies **Jelena Radović-Stojanović**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Unequal gender relations in predominantly male professional organizations create gender inequality which is a general social phenomenon that, as such, creates gender and hierarchical structure of the organization. In the police, as a typical men's professional organization, the existence of traditional gender relations of domination and subordination harm to women who are in the minority, who are in such professional environment in a worse position, and have fewer opportunities and chances to advance. The basic characteristic of police service, from the perspective of gender relations, is gender inequality that reproduces the dominance of masculine and subordination of feminine. The effects of the "glass ceiling" and in general gender regime that is functioning in the police organization, leads to unequal relations and make the police such a profession in which women do not have equal chances and opportunities as their male counterparts.

Keywords: gender relations, the glass ceiling, gender regime, police, women.

INTRODUCTION

The differences between women and men as social beings are the product of social structures. In that sense, gender inequality is defined as the result of "social superstructure of biological sexuality" (Papic, 1989). In the discourse on social gender relations the prevailing attitude of the patriarchal system of values is that the natural differences between men and women are instrumentalized in favour of social reproduction of gender inequality as the essential principle of its existence. It is not only the dominant position of feminist theoretical paradigms. gender inequality as a universal social phenomenon The famous French sociologist Pierre Bourdieu (Pierre Bourdieu) tells us about gender inequality as a universal social phenomenon. Such a social relation between the sexes is the result of a mechanism of maintaining the rule of "male-centric vision of the world." The changes are only visible in the fact that "men rule imposes no longer as obvious as self-evident", but inequalities persist as a consequence of the "structure of difference" (Bourdieu, 2001: 122-126). Bourdieu has defined gender inequality as a social law which is present throughout the history of human society, and the only thing that changes are the manifestations of the subordinate position of women in a society. The division of roles between the sexes, as a widely accepted system of values and expected model of behaviour in all aspects of life, is the thing which sustains and reproduces gender inequality.

Defined gender socialization patterns of behaviour are learned and passed on from generation to generation. Social constraints and the accepted gender roles define the starting positions of women and men as the first step in limiting the opportunities and denial of opportunity. In fact, "sex role stereotypes" are defined as the major axis of hierarchization of social power which does not belong to the female sex (Milic, 1994: 97). Besides shaped patriarchal value system and cultural heritage of social norms that sustain it, gender inequality persists and modifies the conditions of solid structural barriers and strong mechanisms of their maintenance. The processes that are dependent on gender distinctions within professional organizations construct, in the long term, hierarchies of power, segregation and exclusion on the basis of gender relations.

One of the important factors in organizations that affect the formation of hierarchies, occupational segregation and exclusion are genders. Gender perspective through the interaction of participants (men and women) affects the maintenance of gender roles. Efforts to keep women away from traditionally male occupations and professions stem from the social norms and result in low recruitment and inability to retain women in these professions, as well as refusing them to professionally prove as equally competent with men (Garcia, 2003).

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Police have always been defined as typically masculine profession. The police profession traditionally appreciates a strong impact and secure support of colleagues in potentially dangerous situations in the fight against crime. To achieve this, you need to have (such is a belief) a dose of aggressiveness and physical strength, a high level of competence and professional skills. Research and statistics show that the typical police work consists of the so-called "80-20" secret. This secret is actually real police work, which basically means that 80 percent of police work is related to the duties of domestic harassment/violence, disturbing the public peace and order and traffic control, and 20 percent are to combat severe forms of crime such as murder, armed robbery and narcotics (Price and Gavin, 1981, according to Garcia, 2003).

Prejudice that the physical strength and aggressiveness are the key elements of police work is partially formed and maintained through police education and training, and consists of a belief in the existence of secret that 80 percent of police work is fight against serious forms of crime, and 20 percent of police work is to resolve violations and milder forms of crime. However, no study has confirmed the fact that the successful resolution of a potentially dangerous situation in the police work required physical strength (Garcia, 2003). The police profession as one of the professions that are traditionally closed to women because there are double standards which are expressed through the processes of education and training, gender-based violence and discrimination and double standards for professional evaluation (Martin and Jurik, 1996). Although women have not abandoned the field of police profession, man continues to practice segregation in certain areas of police work and professional stigma of women as those who are not good enough to be fully integrated and accepted by the police as an organization.

POLICE AND "GLASS CEILING"

The elimination of gender distinctions or differences caused in the sphere of work and professions must be followed by the elimination of differences between masculine and feminine occupations and fields of work (Garcia, 2003). Such a distinction of profession causes conflict within the police, because the acceptance of women as essentially different from men reproduces police as a culture whose cultural beliefs say that women's ways of doing police work cannot be good for the police (Kessler-Harris, 1990). The processes that depend on gender distinctions construct in the long term professional organizations as hierarchies of power, and even segregation and exclusion on the basis of gender relations. Efforts to keep women away from the masculine profession is a product of the society, and results in shortages of strengthening the recruitment of women in these professions, their stagnation, leaving the profession, and basically not recognizing that women are competent for "men's work".

In the academic literature that deals with glass ceiling there are, roughly speaking, three main directions in which the authors use this term. In the first category of research, the glass ceiling is used to explain the lack or absence of women in senior management echelons of the organization, analyzing its effects on management positions in top management, the management hierarchy and the distribution of income (Blum et al., 1994; Powell, 1994, Baxter and Wright, 2000; Albrecht et al., 2003, by: Benchoup and browns, 2009).

Cotter, Hermsen, Ovadia and Vanneman (2001) have developed a theoretical framework for their study of the effects of glass ceiling. They do that through four criteria that make up the circuit definition of glass ceiling in order to distinguish it from other types of inequality (pp: 657-661): glass ceiling in organizations origins from gender inequalities, and is not explainable by other professional features for advancement required by the employer, which are greater at higher levels of resources (money, power), and which are reflected in the opportunities for advancement to higher levels regardless of the proportion of employees, increased during his career. This study is focused around the core of glass ceiling effect, which is reflected in the inability to shift up when resources are high (earnings power), especially in the later stage of career development. This setting implies the existence of a glass ceiling at each level of advancement which means that at each successive level it is more difficult for women to penetrate.

The other current research analyzes the glass ceiling problem as a perception of individuals and groups on the existence of a glass ceiling. These authors believe that women are actually aware of

the existence of the glass ceiling and thus manage their careers and expectations for it, or create the perception of fear of progression (Powell and Butterfield, 1994, by: Benchoup and Browns, 2009). In this way women perform auto selection of professional advancement, or hinder themselves and produce gender inequality.

A third group of researchers does not use the glass ceiling as a central concept of explanation for the problem of gender inequality in the professional advancement, but it is used carefully and mainly through research findings. For example, with the help of Bourdieu's concept of *habitus* and field, in one study they explain how women use social *habitus* which is desirable for men to break through the glass ceiling (Corsun and Corsten, 2001, by: Benchoup and Browns, 2009).

We believe that for the analysis of the lower status of women in the police profession it is quite proper to use a combination of all three approaches, however, because of the purpose of this study, we can only show briefly the facts of global status of women in the police profession, glass ceiling effect on the organizational level, and on a social level. This means that women in the police force cannot achieve a higher ranking, as a group, or individually. Women who were able to reach high management positions in the police are often those whose testimonies sometimes confirm, sometimes not, the existence and operation of the mechanism. Mechanisms of glass ceiling may be different - the uncertainty of peer reviews, unjustified fear of competition imposed by the principles of nepotism or other interest motives, prolonged waiting to receive the appropriate level of professional titles and though all conditions, decision-making based on vague criteria for selection for a higher leadership position, and so on. Studies that are based on oral testimonies of women who have felt the effects of these mechanisms show how their impact is negative and de-motivating. (David and Woodward, 1998; Enwis 2003).

The existence of a glass ceiling mechanism is related to disabling women, because of their gender, to gain the position that entails high prestige, power and money. If the police are seen as the organization through which one can get some of these features, then it is understandable why it is difficult to win high places. Women are heavily underrepresented in the management of law enforcement agencies, particularly in the governing bodies. Although police leaders are elected solely from the employees, where women are present, they do not have equal access to these structures. In relation to the present moment, in Serbia some twenty years earlier, the operational activities of the women in police were relatively small, and the diminished access to senior management positions, while the education system was been favourable: of all three institutions for training future members of the Ministry of Interior (Police Academy, Police College and Police High School), only the Police College, in limited numbers (quotas dictated by the Ministry of Internal Affairs), was enrolling girls. When it comes to career advancement opportunities, the lack of women at the Police Academy was an obstacle for their professional recognition. Since the graduates of the Police College (including women) can thrive only to the rank of captain, in contrast to the Academy students (men only), for which there are no limits, no woman could be in the usual way promoted to the rank higher than captain. This conclusion was the result of recommendations of the OSCE (Monk, 2001) that "both Republican ministries should make appropriate changes to allow women officers to participate equally with men in all aspects of operational policing," that "both Republican ministries' policy change recruitment in order to enable women to be recruited at all levels in the police," and that, with international assistance, any barriers to the entry of women into the service at all levels must be removed (Novović, 2006). Given that in 2006, the Police College and Police Academy merged into one institution – Academy of the criminalistic and police studies, with two levels of study, vocational and academic, the situation is somewhat better for the women who want to go to school, because they have been allowed entry into the quota of 25 percent for full-time study, and for self-funded studies there is no quota. However, determining the quota for female candidates, registering the state policy, in this case it can be interpreted as a form of discrimination through the mechanism of the glass ceiling, because the women who want to do police work, from their first step have limited choice of field of education and professional orientation.

Overall, Serbia has a very strong effect of "glass ceiling," where women see opportunities for improvement, but that goal is shared by seemingly invisible barrier (glass ceiling). This statement can be proven factually through numbers: the areas of decision-making in enterprises since 2000 to 2006 were always filled with less than 20% women, and women are less represented in senior

management positions (Zoric, Dičić, Petkovic, 2008). Women in the police profession are mainly distributed in administration, lower in the hierarchy, lower in the titles, and in the performance of duties mainly covering area of female crime, juvenile delinquency, working in women's prisons, the communication, crime laboratories, offices for public relations and internal information, planning units, etc.

As we know, there are rare research dealing with the advancement of women and their integration within the police profession in Serbia. In the earlier period there were two studies with subject of women in the police, and women in the security sector, from the aspect of improving working conditions and reducing gender inequality in these sectors that are traditionally male. In a survey conducted under the auspices of SEPCA (Association of Southeast Europe Police Chiefs), which was conducted in 2010, the current situation in Serbia and neighbouring countries was presented when it comes to the status of women in the police force in the national police services in the countries of South East Europe (SEE) countries - Albania, Bosnia and Herzegovina, Serbian Republic, Bulgaria, Montenegro, Croatia, Macedonia and Serbia. The results showed that the integration of women employed in the police service is not on equal footing with men, and that the problems faced by women police officers are similar in all SEE countries, despite the fact that in the last decade the influx of women into the police increased.

Another study that we would like to mention was the action research on women in the security sector in Serbia, conducted by the Working Group of the Government of the Republic of Serbia with the support of the Ministry of Defence, in 2010. The aim of this research was the development of the Action Plan for the implementation of Resolution 1325 of the Security Council of the United Nations - Women, Peace and Security in the Republic of Serbia (2010-2015). The researchers checked whether there are gender-sensitive policies within the security services in the Republic of Serbia (Ministry of Defence, Ministry of Interior, Security Information Agency, Military Medical Academy and the Army, Serbian Army, Customs Department), under which they explored the representation of women in state institutions security of their progression and integration. This study was limited to the implementation of legal and policy verification capabilities to improve institutional and organizational measures for the promotion of gender equality in the security services.

Development Program under the auspices of the United Nations (UNDP) runs a project entitled Supporting gender standardization in police practice SEE (Support for Gender Mainstreaming in Policing Practice in South Eastern Europe) for the period 2009-2012. It is currently in the process of organizing a workshop on gender equality in the security sector (to be held in Belgrade). This project has three main goals: 1. raising awareness of the position of women in police services in the countries of Southeast Europe, 2. development of adequate capacity for the implementation of gender equality in police practice in these countries, and 3. formation of regional networks at the national level. The project helps the Association of South East European police chiefs (SEPCA) the organization and establishment of women police officers in Southeast Europe (WPON), which functions as an independent service under the auspices of SEPCA. WPON actually supports the implementation of the gender policy implemented by the United Nations in accordance with Resolution 1325. In fact, the project is to support the advancement of women in decision-making and the transformation of state institutions for the purpose of social change towards gender equality. In practice, project has to support the implementation of the Action Plan for the implementation of Resolution 1325, adopted by the Government of the Republic of Serbia in 2010.

POLICE AND GENDER REGIME

Organizational gender structures are active, not passive. When a woman enters a male dominated organization she should adapt to the environment in which the gender dichotomy is preserved while other changes (organizational, technological, legal and other) occur spontaneously. The dichotomy of gender relations and structures within organizations often consists of dominance in the image of masculinity "male workers" or "male boss" and the "office ladies" (Cockburn 1983, Wajcman 1999, Ogasawara 1998, Pringle 1988, by: Connell, 2005).

Gender is, above all, a form of social relations which define the positions of men and women, the cultural meaning of masculinity and femininity, as well as movement through life and life op-

portunities of both. There is one aspect of gender relations as a base for other aspects of gender relations because they are multidimensional (Connell 1987, Walby 1990, according to Connel, 2005). The overall pattern of gender relations within the organization was called the "gender regime." This form allows the organizational context of specific events, relationships, and individual practices more easily viewed and analyzed by the researcher. Local gender regimes may be influenced by general social gender regime, or they can be independent. Connel identifies several main dimensions of gender regimes: 1. gendered division of labour - the way in which production and consumption are arranged around the main gender divisions, including the division of labour and occupations, as well as the division of paid work and domestic work; 2. gender power relations - the way in which the authority and power are split among the clans, including the organizational hierarchy, legal power, and collective and individual violence; 3. emotions and human relationships - the way in which antagonisms and the connections between people and groups arranged around the branches, including feelings of solidarity, prejudice, sexual attraction and repulsion; and, 4. gender culture and gender symbolization, the way in which gender identities are defined in the culture, the language and symbols of gender discrimination, as well as beliefs and attitudes about gender.

If we apply the model of gender regimes to the police as an organization, we observed that, compared to the four mentioned dimensions, women's position in the police force is at extremely unequal level than that of men. Thus, according to the first dimension there is segregation of police work - most women are traditionally assigned jobs that are typically female (administration, juvenile delinquency, counter operations, etc.), which generally follow the wider social division of labour, and are typically female jobs. In this way, we see that the division of labour within the police organization follows the division of labour in the labour market (Garcia, 2003). This phenomenon suggests a stubborn segregation process in police organization which is influenced by social gender inequalities in the labour market and under the influence of the internal structure of the police organization that is predominantly male. Based on the division of labour in which police have all subordinate jobs assigned to women, it follows that they have less power at lower positions in the hierarchical structure, and have less control in the affairs of their businesses.

These are the categories of other dimensions of gender regimes in the scheme, with the categories of individual and group violence may relate to violence against women within the police profession suffered by their colleagues, and that can vary from the defiance of their professional skills to the sexual harassment. If we put it in the context of sexual harassment in the police profession, we get special dimension. Under the auspices of the "cult of masculinity" any behaviour that has sexual connotation is encouraged, and the actions that exceed the threshold of decency and dignity are often tolerated. Police "cult of masculinity" based on a heterosexual orientation tends to reflect the patriarchal ideology and misogyny, encouraging different forms of sexual harassment and discrimination. "In such an environment of sexual harassment victims are mainly women. The second form, harassment in a hostile work environment, embodies a "cult of masculinity" in its most extreme form, which manifests itself in excessive sexist atmosphere in the working collective. In this case, the victims are almost exclusively policewomen. However, unlike *quid pro quo* harassment, which has a vertical orientation (from top to bottom) in the second case disturbance, takes place on a horizontal level (between workers in the same position in the hierarchical structure) (Kesic, 2011).

Based on the research that was conducted as part of activities aimed at establishing WPON (Women Police Officers' Network of South Eastern Europe) in Southeast Balkans countries in 2010 (the sample had a total of 1460 police officers from the RS MUP), the data relating to the problem of violence at work in the Serbian police presented the following data: that women police officers never experienced the inconvenience of working capabilities announced 36.38% women and 35.71% men among the perpetrators, and 22.86% female and 27.19% male managers. Conversely, if it happens all the time, says to 2.29% and 1.01% of women perpetrators men and women 2.86% and 0.24% of men managers. The largest number of respondents in all categories are to be placed with the "sometimes." Belief that colleagues would never joke with them roughly representing 27.93% of women police officers, and the same thoughts and 37.13% of their peers, and 27.66% female and 27.13% male managers. Yes it happens all the time; believe 4.46% of women and 1.0% of male employees, including managers - 0.71% of the women and men 0.47.

Respondents in 38.68% of cases (women) and 45.9% (men) and 25.0% (women leaders) and 37.62% (male managers) say that verbally challenge personal abilities of women was not present, and significantly higher number of considered it happens sometimes. In contrast, it is common practice; consider 3.11% of women and 0.8% of male employees, and 1.43% and 0.12% of women and men leaders. Perhaps more sensitive than previous issues, sexual harassment, also found its place in the questionnaire and, based on the answers of respondents, the picture is as follows: namely, 0.87% and 0.52 female police officers and men% 0.24% male managers (and no woman director) think that this kind of harassment has been permanent, while 74.13% of women police officers and 73.35% of their peers, 59.23% of women executives and managers 66.01% of men think the opposite - that it does not exist. It is notable that, in contrast to the previous questions, most respondents rejected completely, rather than partially specified form of harassment (Novović, Government, 2010).

At third and fourth dimensions that, when the police profession are in question, may include categories of gender bias, solidarity and police culture, in terms of emphasizing the dominant professional field of masculinity, police profession has been traditionally gender oriented towards men, and as such, the police subculture fosters symbols of aggressive masculinity such as physical strength and power that supported the practice and confirm the status of masculinity and of heterosexual "ideal" police officer. In this atmosphere, women's professional integration is difficult due to the effects of prejudice that women are weaker and that they cannot be the one who may completely rely on (Miller, Forest and Jurik, 2003). Traditional notion of masculinity in society has created the image of the police profession as "typically male profession." This approach is important to define the process of socialization of police officers, but this also painted their working environment in which the police are constantly expected to be physically and emotionally strong, brave and aggressive as needed. The work environment encourages masculinity in the police through the following effects: the excitement, power, courage and camaraderie which also make the profession attractive to man, but in whose absence leads to reinforcing stereotypes of masculinity without it would otherwise have been tedious job, and also police officers tend to come from working class families where the socially defined roles of men throughout history had strong support (demonstrating the strength of physical skill, strength and endurance, lack of sentimentality in the work, courage despite the physical threats, etc.) (Crank, 2004:231).

Researchers Chan, Doran and Marel (2010) have set some hypothesis about the existence of gender roles and playing them through everyday gender relations within the police profession and empirically test them in a police organization. The obtained data and their analysis showed that there are four types of gender relations: women in the police behave in accordance with their gender role (doing gender); deny women their gender role (undoing gender), and; women are aware of their differences with male colleagues but seek equal treatment (doing and undoing gender). In the first type of gender relations respondents were sided (8 men and 6 women) who felt that women and men are different and therefore need to work a variety of jobs in the police. Male officers expressed a clear view that women have no place in police. They believe that women are just bad factor in potential violent situations the police are facing. Although generally believed that women are a positive addition to the police, on the other hand, they expressed the view that because of physical disability police is not a place for women to stand in the "front line" of police work. Women have their place in the police organization, for example in dealing with women victims of violence. Women police officers in this group had the same attitude: they were not for the situation in which two women are on the same team for security reasons and high risk. Although both men and women in this group felt that women do not have the physical strength, women are considered to be skilled in complementary tactics in the conduct of the police and the men felt that there should be a clear segregation of police work. At a subtler level of analysis, both women and men in this group were acting in accordance with their gender roles when it comes to sexist jokes: men enjoyed telling jokes which women either ignored or laughed along with them. In the second type of relations the situation is different: the women felt that they should be treated equally as their male counterparts. They did not want to be protected by their male colleagues in dangerous situations. Police work has been recognized as a difficult and dangerous and believed that a woman who went to the police profession must be ready for that. The longer they are in the police force, the more they realize that women do not have to prove the brutality or the increased workload. As far as physical strength, it was thought not to be the most important factor of good work, and that men are not necessarily

stronger than women (5 women). As for the third type of relationship, (3 men and 4 women) respondents expressed the view that women and men should be treated equally but felt that men and women bring different qualities in police work. On several occasions, it turned out to be a policewoman in winning the confidence that they will do a good job, to increased risk, it was necessary to ask colleagues not to call reinforcements when he saw two colleagues who come to support. On another occasion, a woman police officer had to ask a colleague to stop doing offensive remarks at the expense of colleagues as they will have to report him. Several women police officers had the impression that their pregnancy and maternity factors hinder their career, as one of the women told: "when I was pregnant they began to treat me like I have no brain." The respondents in this group felt that women's contribution to policing was not only in physical force and harshness, but in different approach to resolving difficult situations.

Longitudinal analysis of this study showed that the newly employed in the police pay more attention to police work, and do not notice gender differences as they try to prove themselves as police officers. As time goes by and a police career is stabilizing, police work has been taught, so emerge the lines of division through gender roles and status. Police are not in the situation against the offenders, but the image is slightly larger and there are negative and critical site of the media, and the victims do not want to cooperate, and ungrateful public opinion, and uncoordinated legal and judicial system, and so on. Later in career there appears subtle hostility between the operatives and those in management and administration. In the group of women all of them after five years of police work were promoted to a higher rank, so that everything that happens in the professional field as well as the police began to get a clearer outline of hostilities and dysfunction, and demonstrate that they have mastered the job and doing the bad or good job was no longer the primary dividing line. When it comes to the treatment of female police officers compared to matters of career advancement, working conditions, and second, there was a noticeable difference and gender dichotomy. Most police officers had a career over the years and they changed their behaviour. Moving shows that gender is not a stable category, it is constant upgrades and changes through social interaction. The study showed that the most vulnerable are women in the period of pregnancy and upbringing of children. In that period, a woman becomes gender-sensitive and begins to assume the role of gender in the profession. The group has not acted in accordance with prescribed gender roles (6 of them), only one woman had a child. The group that is, all of them had children. The study also showed that physical strength as a factor of rejection of women as a gender that is not equal to men, rapidly diminishes as career progresses, and doesn't become an important factor for promotion, and in managerial positions physical strength has no consequence, but nevertheless management is still dominant masculine environment for the woman who wants to progress.

Despite legislation and official policy, women in the police force continue to meet with resistance and obstacles in their professional integration. Women are still experienced as a threat to the police image and male identity, masculine dominant police culture and gender in general nature of the police organization (Martin and Jurik, 1996).

Study, whose data are presented by Brown (1996), shows that women in the police, regardless of the country they work in, have difficulties entering the profession, and once they get in, they experience persistent refusal to be accepted equally. Researchers from a variety of social and cultural environments testify to the dominance of masculinity and masculine values and beliefs that the police work is unsuitable for women. The data obtained from this comparative study indicate that the police is closed field for advance the integration of women into the profession, but show some differences in the extent to which police officers from Western Europe and England differ from those in the Central and Eastern European countries (based on data from 1996 obtained through a survey conducted by the European Network of Policewomen (ENP) in cooperation with the International Association of Women Police (IAWP)) in terms of integration factors (receiving the service, training and instruction, and assessment of acceptance by male colleagues). In addition to the factors of integration data collected in relation to equal opportunities in the police profession (promotion, overtime, and a choice of places - occupational segregation) also negatively rated, with some differences in the degree of discrimination (police officers from Western countries show a higher level of discrimination in respect of colleagues from Eastern Europe are). One explanation is that the police women from Eastern Europe are exposed to less discrimination due to high tolerance for it, and that it is because of reduced social awareness of the existence of gender discrimination (this is a result

of the weaker and slower legislation in the area of gender equality, and the fact that in the Western countries and the United States there is a long tradition of strong feminist movements that work on emancipation women and raising their awareness on gender discrimination) (Brown, 1996).

The existence of mechanisms of glass ceiling and generally, gender regimes dominated by masculinity, is linked to the disabling women because of their gender, to reach a position that entail high prestige, power and money. If the police are seen as the organization through which one can get one of these features, then it is understandable why it is difficult for women to get to high places. Women are heavily underrepresented in the management of law enforcement agencies, particularly in the governing bodies. Although police leaders are elected solely from the employees, where women are present, they do not have equal access to these structures.

CONCLUSION

Based on the existing literature and research on problems faced by women working in the police force, which is related to gender inequality in the male dominated profession, there are several dimensions of inequality generally observed: first, women are good cops, they are equal to their male counterparts in ordinary police roles, and are better at solving conflicts, but in spite of this, women are discriminated at all levels of police careers because they have suffered unequal treatment and double standards on entry and selection, scheduling the tasks (suffer occupational segregation) or career (Cuadrado, 1995, James, 1993; Poole and Pogrebin, 1988; Schetzer and McCulloch, 1993; Prenzler, 1996), as well as open or latent hostility to the dominant masculine police culture (Sutton, 1992; Stratton, 1986). To survive and thrive in the police, the women were forced to adapt to mainly male environment, which frequently tolerates the kind of behaviour that make up the continuum of de-professionalization and de-feminization (Warren and James, 1996).

Women in the last two decades have achieved relative success in entering the police profession. This achievement required the perseverance, dedication, ambition, courage and tolerance to unequal terms and to fight barriers in the police profession set by men and society as a whole. The glass ceiling has begun to discount even though police career woman is not so straightforward and neutral as career of man. Many of the barriers are systemic and consist of social perception of women unfit for the police which is really hard masculine field of work. It would be naive to claim that all the obstacles are missing and outdated just because it has increased the number of women in the police and because the legislation began to embrace both the position and the equality of women in the labour market. Despite the increased activities of women's and feminist movements in the world, and the creation of professional associations and support networks for women within police organizations at the national and global level, the degree of gender inequality remains very high and is influenced by the existing police organizational culture that still favours men. What has been proved so far and confirmed by the study is the fact that women are equally capable of contributing to the police in doing all kinds of jobs, both in operational terms (difficulties and exposure to danger) and in management (at all levels) (Shea, 2008).

The introduction of the equal opportunities policy and its implementation may be well with women police officers to shorten the timeline in which they will recognize that they are discriminated against and excluded from a wide range of police duties and benefits (Brown, 1997, 2007). One of the objectives of the analysis of the factors affecting the inferior and unequal treatment of women in the police profession should be the formulation of specific recommendations for improving the status of women in the police force. In this sense, the authors generally agree that the promotion and implementation of the law on gender equality, then, the adoption of employment policies, selection, training, career development, and measures to improve integration of women were articulated and stated the practical goals whose implementation leads to gender equality in the police profession. Women's associations around the world actively influence on improving the position of women in the police. Today the most active are associations of women police officers in the U.S. and Europe, and there are active associations in other parts of the world. Guided by the policy of equality, goal stands in their work to improve and enhance the working conditions for women officers. The objectives of the association of women police officers are directed to co-operate and support, sharing knowledge, information and experience.

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A REAL-WORLD-ORIENTED METHOD IN CHINESE POLICE TRAINING

Associate Professor **Li Yongtao**, MA
National Police University of China, Shenyang, China

Abstract: According to Sir Robert Peel, Father of modern police system, the training of proper person is at the root of police efficiency. Considering the dangers, risks and challenges embodied in criminal investigation tasks, such trainings demand to be more efficient and real-world-oriented. This paper, based on the author's empirical training experiences in China Criminal Police University, systematically introduces the Real-World-Oriented Method (RWOM) in the criminal investigation training course. The paper will begin with introducing the use of case study teaching as a methodology and discusses its acceptance as a viable method of teaching by universities in other parts of the world as well as in China. Then the paper will present the objectives that the training program aims to achieve, describe the organization and implementation of the RWOM in class scenarios, analyse the training effects of the RWOM. Finally, it will propose some suggestions for improving the effectiveness of the RWOM.

Keywords: real-world-oriented method**,** case study, police training, China.

INTRODUCTION

In Sir Robert Peel's policing philosophy, the absence of crime and disorder is the best proof of police efficiency, and the training of proper persons is at the root of police efficiency.[1] Considering the dangers, risks and challenges embodied in criminal investigation tasks, such trainings demand to be more efficient and real-world-oriented. Using real criminal cases in police training programs is an effective and efficient way to achieve such a goal.

The use of case studies as a training method can be seen in use worldwide. Harvard University is usually considered a leader in the development of the theory and practices of case study teaching methods.[2] The Harvard Law School has outlined a clear definition of case studies.

Case studies are educational tools that engage readers in active learning by putting them squarely in the shoes of real people wrestling with real dilemmas. As students read a case, prepare assignments, and actively participate in class discussions and exercises, they learn how best to approach the problems described in the case. Cases are used to illustrate a particular set of learning objectives, and (as in real life) rarely are there exact answers to the dilemma at hand. The case study will provide readers with an overview of the issue, background on the setting (typically the individual, company/institution, industry, and larger environment), the people involved, and the events that led to the problem or decision at hand.[3]

The case study teaching method has now been accepted by many universities worldwide. For example, the Indian Hyderabad Business School is said to be implementing a 100% case study based teaching system.[4] In 2011, when the school graduated the first group of students who had experienced the 100% case study based learning, an evaluation study was conducted through surveys and focus group discussions among the students, which included all the stakeholders. This study concluded that the case study based learning approach could be strengthened by addressing some issues that have been identified.[5] In the United States, the Center for Teaching and Learning (CTL) at Stanford University produced further detailed information on teaching with case studies, including the concept, the goals, the functions, the creation, the implementation and the assessment of case study teaching methods.[6] According to their information, case studies can help 'assess students' ability to synthesize, evaluate, and apply information and concepts learned in lectures and texts'.[7]

1 Lee, 1901; Lentz & Chaires, 2006
2 Center for Teaching and Learning, 1994; D'Souza, 2011; Foran, 2001; Harvard Law School, 2012b
3 2012a, n.p.
4 D'Souza, 2011
5 D'Souza
6 Center for Teaching and Learning
7 Ibid, p. 1.

The information discussed indicates that the case study teaching method has established a solid position in the teaching programs of several universities worldwide, such as Harvard and Stanford universities in the West and the Indian Hyderabad Business School in the East. The case study teaching method is also an essential education tool used for training police cadets in Chinese police universities and colleges. However, how this method is employed in class scenarios in Chinese police universities and what are the effects of such methods are remains a much less researched field. So far, the English literature review has failed to locate any papers concerning case study teaching methods in Chinese police education. Even within China, publications of such studies are far from being adequate.

To add more insights into case study teaching methods, this paper, based on the data from the author's over 15 years teaching and researching experiences in the area of police training and education at the China Criminal Police University, systematically introduces the Real-World-Oriented Method (RWOM) in police training programs that has been employed in Chinese police training. The RWOM not only uses real criminal cases in real life, but also simulates the real models of criminal investigation applied in frontline police organizations to organize the trainees in the training process. Hence, the name of RWOM is given.

THE OBJECTIVES OF THE RWOM

Criminal investigation science is an applied subject that studies the laws and features of crimes so as to learn how to effectively solve criminal cases. This involves the summation and abstraction of the experiences gained through former successful and unsuccessful criminal investigations as theoretical guidance for frontline criminal investigation practice. In the practice of criminal investigation, on one hand, various cases share many commonalities that are worthy of being concentrated into theories for guiding practice; on the other hand, each case has its own particularities that require specific reflections. Therefore, in the process of criminal investigation training, it is of high significance to effectively and reasonably analyse criminal cases from multi-dimensional perspectives so that they can play an instructive role in developing and improving police cadets' capacities for observing, analysing and solving criminal investigative problems.

The approach used to facilitate this training is RWOM. It is based on real criminal cases (usually the closed ones) with support from multimedia sources, this method aims at cultivating students' abilities at observing, analysing and solving problems through a mock investigation of a real criminal case, along with developing their criminal investigative mindset. This method requires students to comply with the general procedure of criminal investigation which involves completing the duties of accepting crime reports, responding to the crime scene, analysing case circumstances, employing investigative measures, breaking through investigative deadlocks, and concluding the investigation. According to the training objectives, the RWOM may be employed flexibly, not being limited to rigid frameworks, focusing on the particularities of a specific case. The RWOM is expected to achieve the following training objectives.

Reconstructing Real Case Circumstances

Reconstructing the real case circumstances is one important dimension of the RWOM. Though it is impractical to reconstruct the circumstances of a closed case in every detail, it is essential to provide students with sufficient information to make it as real as possible. RWOM usually uses original crime scene pictures, videos and texts made by frontline police agencies so that the genuineness can be created to the maximum degree. This approach of reconstructing the criminal case circumstances gives students the feeling of it being a 'personal experience' via their senses of seeing and hearing. Though this method does not have the benefit of a hands-on experience like that in mock crime scene investigation training, the realness of the case scenarios is seen to be more beneficial than the use of mock crime scenes.

Cultivating Criminal Investigative Mindset

In this paper, criminal investigative mindset refers to the professional way of thinking that investigators have developed during the process of criminal investigation which involves responding to crime scenes, collecting evidence, analysing case circumstances, and discovering and arresting the criminal suspects. The criminal investigative mindset embodies not only the investigators' cognitive process of dealing with crimes and criminal suspects, but also the investigators' decision-making process for employing investigative measures to fulfill the investigative objectives. The criminal investigative mindset cuts across the whole process of criminal investigation. The development of the criminal investigation mindset cannot be built in a short period of time, but must be tempered through a host of studies and practical sessions. During the process of RWOM, which is based on real case circumstances, we usually propose corresponding questions, encouraging students' to induct and deduct on the case circumstances, to explore the laws involved in the crimes, to find out ways of solving cases. The purpose is to cultivate creative investigators who are not only adept at analysing crimes in accordance with the general laws of criminal investigation but also are able to use innovative thinking which jumps out of the fetters of conventional investigation practices, measures and mindsets.

Simulating Criminal Investigation Processes

The mock criminal investigation in the RWOM is different from the mock crime scene investigation in many ways. The latter puts more stress on cultivating the operational skills of students and requires physical scenes, physical properties, instruments, etc., which need huge support in manpower, materials and finances. The former puts stress on the activities of analysing the case circumstances, profiling criminal suspects, proposing investigative measures, making investigation plans and summarizing lessons, which aims at cultivating students' logical thinking capacities related to analysing problems, making decisions, inductive and deductive reasoning. The mock criminal investigation in the RWOM presents real crime scene scenarios recorded in videos and/or photos through the use of multi-media facilities, which is more economic and convenient, thus saves time and energy by condensing the sometimes protracted process of criminal investigation (maybe several months or several years) into several hours of mock criminal investigation training process. This not only provides students with considerable amounts of information, but also greatly inspires the students' enthusiasm, achieving excellent teaching and learning interaction through experiential activities. In the training process, we follow the model of the 'Criminal Investigation Squad' which is usually employed in China by front line police agencies. Students are divided into several 'Criminal Investigation Squads' and each squad select a leader who is in charge of commanding and organizing the 'criminal investigation' jobs within their squad.

Communicating Interactively

The RWOM emphasises interactive communications between students and students, between students and teachers, between students, teachers and frontline police officers. Generally speaking, students must play the major roles in the RWOM training process. From the perspective of students, they first need to discuss a case and communicate with each other within their own squad to concentrate their ideas and make decisions. Then, they must present their discussion results to communicate with other squad members. Finally, they need to make some summaries and comments on their own performances and those of other squads.

In the case of teachers, at the beginning, they should act as no more than film projectionists or tale tellers who know exactly where and when to stop, leaving the students being motivated and keen to continue the investigation. Following this initial stage, teachers will act more like librarians/facilitators who provide students with the information they ask for and provide some guidance to help them find the information they need.

Finally, teachers should act as objective and learned critics who must make appropriate and fact-based comments on students' performances and presentations, which is very essential for high quality teacher-student interactive communication. Meanwhile, taking students and teachers as a whole, they need to make some comments on the investigation process of the frontline police to analyse their strengths and weakness. In this way, the multiple interactive communication functions between students, teachers and police officers are realized.

Drawing Investigation Lessons

Each criminal case, whether it is a greatly praised success or a greatly criticized failure, always has something deserving the investigators' summation and study. When reflecting on the positives and negatives of these cases, the investigators should always learn something beneficial, whether it be following a successful approach or being warned to avoid making the same or similar mistakes. For example, through discussion and comparison of the 'Simpson murdered his wife case'[8] and the 'She Xianglin murdered his wife case'[9], students genuinely understood the significance of due procedure in protecting the rights of innocent individuals and the criminal suspects; through the discussion of the serial murder-robbery-rape cases committed respectively by Yang Xinhai[10] and Zhao Zhihong[11], students recognized the importance of integrating the criminal investigative technology with the criminal investigation basic jobs and the support of the masses, which also inspired students to make some rational reflections over those current serial crimes and the corresponding countermeasures used. The lessons and experiences evident in such types of well-known criminal cases will be engraved in the memory of every police cadet who has gone through the RWOM programs.

THE ORGANIZATION AND IMPLEMENTATION OF THE RWOM

Preparations

Preparations before training are the prerequisite and basis for the success of conducting the RWOM. Without sufficient and logical training designs, there will be much less chance of high achievements in the training activities. The preparing stage mainly includes two tasks: collecting real criminal cases and making CAI (computer-assisted-instruction) designs.

The criminal cases used in the RWOM mainly come from three sources: first-hand case materials provided by the frontline police agencies, video materials downloaded from the TV and the internet, and some classical cases collected in written documents. Among these three types of data, the first two take up of 40% respectively because of their attributes of visibility, vividness and reality. The last type of data makes up approximately 20%, focusing on those very famous cases.

In the process of collecting cases, the criterion of variety must be followed. The cases must embody those where the criminal investigation activities have been expertly conducted and those that have not been; those that have been successfully solved and those that criminals are still unknown or at large; those that occurred in China and some typical ones from abroad; those that represent the commonality of the same category of crimes and those that reflect the particularity of a specific case; those that manifest the new investigative technology and those that prove the enduring usefulness of traditional 'gumshoe' and 'flatfoot'[12] measures.

After the cases have been collected, it comes to the stage of editing cases and designing CAI. In the process of CAI designing, we need to maintain the wholeness and realness of the collected cases as well as to consider the particular teaching objects and the limitations of practical conditions.

8 O.J. Simpson was a famous American football player who was suspected of murdering his ex-wife Nicole and her boyfriend Goldman in 1994. However, due to various factors, especially some police officers violated certain due processes in collecting evidence, Simpson was acquitted of the murder because the state of California was unable to prove that he was guilty 'beyond a reasonable doubt'.

9 She Xianglin was a police auxiliary at a local police station where he lived in China. His wife Zhang Zaiyu got mental disease in 1993 and was reported missing in January 1994. In April, a highly decomposed female body was found in a pond near the town where She Xianglin lived. Through some investigation (without DNA identification), police identified the dead was the missing wife and the husband was arrested and sentenced to jail for 15 years. In 2005, the 'dead wife' returned alive. It proved that the means of extorting confessions by torture had been used and She Xianglin was totally wronged.

10 Yang Xinhai was born in 1968 to a peasant family in Henan Province in China. Between September 2000 and August 2003, Yang committed 22 murder-rape sprees in 4 provinces, killing a total of 67 persons in 35 months, sexually assaulting all the young and most adult female victims.

11 Zhao Zhihong, alias 'smiling killer', was born in 1972 to a peasant family in Inner Mongolia Province in China. From 1996 to 2005, Zhao committed 27 criminal cases of larceny, robbery, rape and murder, with 11 women victims being raped-killed.

12 Monheim, 2006

Generally speaking, the cases are edited in accordance with the following six case-solving stages and relevant teaching measures and goals (see table 1):

Table 1: Real-World-Oriented Method CAI design standards

Case solving stages	Crime report and response	Crime scene investigation	Case circumstances analysis	Employ investigation measures	Break though deadlocks	Dig out hidden crimes
Training measures	Video and/or text data	Photo and/or video data	Mock police squad discussion	Video, photo, text data	Mock police squad discussion	Mock interrogation video, or text data
Training goals	Emergency response abilities	Observation and analysis abilities	Analysis and problem solving abilities	Employ investigation measures abilities	Analysis and problem solving abilities	Combining serial crimes and evidence collection

These six stages are based on the basic steps in real criminal investigation, being conducted step by step, which will not only manifest each respective chronological stage of criminal investigation process, but also ensure the continuity and integrity of the whole process. Each chronological stage may put stress on different teaching goals, but as a whole, the teaching process always aims at cultivating the trainees' abilities of solving criminal cases in the real world.

Stages in the Class Training Process

The organization of the class training process is the core stage of the RWOM. The central task is to reconstruct related case scenarios to the maximum degree so as to guide students into the roles of frontline criminal investigators and accomplish the 'criminal investigation' tasks. The organization of the class training process mainly consists of three steps:

1) Presenting case materials. Case materials should be presented in accordance with the training goals and the concrete criminal investigation processes, guiding students into the scenarios step by step, not all at once.
2) Conducting group discussion within each 'Criminal Investigation Squad'. Each squad conduct their own discussion and fulfill the tasks of analysing the case circumstances, profiling criminal suspects, determining the investigation direction, employing investigation measures, arresting criminal suspects and so forth.
3) Presenting the discussion results. Discussion results can be presented by either oral or written report, which shall be assigned flexibly in accordance with the concrete training hours and specific training content.

The following section takes the '8.5 Murder Case'[13] as an example to introduce how the teaching content of RWOM is organized. The highlighted case circumstances are as follows: On August 5, 2004, two women, about 40 years old, were found dead in their rented house. Crime scene investigation did not find any obvious fighting signs and traces, nor evidence showing the victims had been raped, no valid official identity cards were found. The two victims used pseudonyms when the house was rented. A computer fortune teller report was found at the scene with a woman's personal information on it. Two mobile SIM cards and sale receipts were discovered and collected, without mobile handsets found on the scene. The medical forensic identification showed that the two died on August 1 and August 2, the time span between the two deaths was at least over 24 hours. However, the mobile bill record showed that the two missing mobiles were both powered off at about 11 a.m. on August 2. The criminal investigation squad concentrated all clues and evidence

13 This is based on a real case occurred in China but the real location and names are technically modified in order to protecting privacy of those concerned.

obtained through different sources and concluded that this was most probably a robbery-murder case, meanwhile taking measures to trace the two missing mobiles of the victims. On the afternoon of August 6, one missing mobile appeared in a second hand mobile market. However, when police arrived there, the person who sold the stolen mobile had already disappeared. According to the descriptions of the second hand mobile shop owner, the seller was a man about 170 cm tall, 40 years old, speaking with a non-local accent. On August 8, when the other mobile appeared at the second hand market, the holder of the mobile (Suspect A) was arrested by the police immediately. Suspect A had a crime record for larceny, he had confessed to several thefts committed recently but persisted in saying that he exchanged this mobile with a stranger on the street. The police did not give credence readily to his confessions, neither did they jump to the conclusion that he was the murderer. Instead, police conducted a thorough interview and examined carefully his confession. Finally, the police not only ruled out his suspicion of the robbery-murder, but also found crucial clues through checking his confession, which led to the successful apprehension of the real murderers.

Based on this case circumstances, combining the goals of training, the investigation process was divided into five stages of crime scene investigation, identifying the identities the victims, case analysis, employing investigative measures, controlling the robbed mobile and breaking through the deadlocks, step by step, plot after plot, attracting students to walk into the scenarios and finally 'solve' the case.

Summarizations

The summarization stage includes two aspects: one is made by students themselves, the other is conducted by the teacher. Students' summarization should include not only comments on the frontline police investigation process, the pros and the cons, but also their own 'feelings and gains' obtained through the mock criminal investigation. Similarly, teacher's summarization should include comments on the performances of students and the frontline police. The achievements of the students should be recognized and praised, but the weaknesses and mistakes must be pointed out and criticized, taking the '8.5 Murder Case' for examples again, the teacher should criticize sincerely and seriously those students who proposed the means of extorting confession by torture to make Suspect A 'tell the truth'. Accurate and precise comments on the performances of the frontline police will not only provide students with more instructive information they have failed to notice, but strengthen the teachers' own criminal investigation theoretical knowledge as well, this is always a challenge to all teachers in charge of police training.

In summarizing the '8.5 Murder Case', the teacher should focus on four aspects: the first is analysing the factors affecting the medical forensic identification that mistook the same time of death for the two victims as two different times of death with at least an over 24 hours interval. The teacher should remind students that all identifications are made by human beings and should be examined against other evidence for checking potential deviations and analysed dialectically where conflicts have occurred. The second is, based on the measures of area canvass, criminal profiling and technological means employed in this case, the teacher should instruct students to establish the beliefs of combining the principle of relying on the masses with the policy of enhancing police capacity by technology. The third is the comment on the confessions of Suspect A about the plot that he exchanged the mobile with 'a stranger on the street'. Teachers should re-emphasise the essential criminal investigation principle of putting stress on evidence in deciding any cases, employing the method of thorough investigation and study for checking clues and evidence, never taking the oral statement for granted, and should remind the students to think comprehensively and take all possibilities into consideration when analysing a particular case. This is the most interesting and far-reaching section in this case, because nearly all students at first did believe Suspect A was telling lies and some even suggested using 'special measures' (corporal punishment and torture) to make him tell the truth. When the truth was finally revealed, students acknowledged that they came to understand the harm and danger of subjective judgment in criminal investigation and would never forget the lessons they learned from this case.

A teacher's well-tailored comments are usually those last touches that can bring 'a painted dragon to life', which is also the best opportunity to present a teacher's theoretical knowledge, practical experiences and art of teaching. To be an excellent police teacher, one should not only grasp solid

professional knowledge, accumulating enriched frontline experiences, but also be good at summarizing, be sincere in criticizing students' mistakes, be willing to discover students' strong points, and be adept at inspiring students' enthusiasm and creativity.

TRAINING EFFECTS ANALYSIS OF THE RWOM

The RWOM has obtained high achievements in developing students' capacities in many aspects, such as cultivating team spirit, improving skills in expression and presentation, developing organizational abilities, linking theories with practices, and analysing objectively, comprehensively and independently. The following sections will introduce how the teaching process is assessed and what results have been achieved in the RWOM.

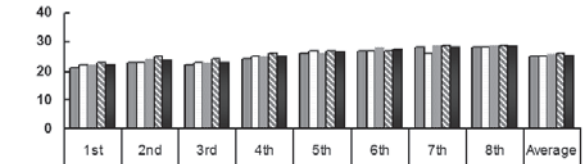
Assessment Criteria

The full marks of each case study unit are 30 points which are distributed into six assessment variables, each variable is made up of 5 points (see table 2-2): variable one is to examine the 'discussions within the squad', focusing on checking the organization abilities of the squad chief and the participation enthusiasm of the squad members. Variable two is to test the capacities of 'employing investigation measures', which aims at evaluating whether students are able to employ appropriate measures in accordance with different conditions of cases when they receive 'crime reports'. Variable three examines students' competence in 'analysing problems', encouraging students to make grounded analyses based on the information presented in the case and the pertinent theoretical knowledge they have grasped. Variable four evaluates students' awareness of discovering, protecting and collecting all types of evidence, and the measures they employ. Variable five is to test students' 'innovative thinking' in conducting 'criminal investigation' processes, which aims to encourage students to use their initiatives to solve concrete problems. Variable six is designed to assess the quality of the 'written report', testing students' abilities in completing a written report. The written report includes mainly the processing jobs of re-organizing class discussions and is allowed to be completed outside class hours, but must be turned in within 24 hours.

In order to obtain the first hand empirical data for analysing the training effects of employing the RWOM, four groups of students were randomly chosen and named with 'squad 1, 2, 3 and 4' with each group of ten participants. The data, teaching measures and facilities used for the 'four squads' were totally the same with that used for other 'squads'. This training course lasted one school term (about 4 months), with 16 class training hours (not including outside-class preparation hours) for 8 case studies. The marks of the four squads obtained in the process of conducting the 8 case studies have been recorded respectively in detail based on the six designed 'training process assessment criteria' (see table 2-2). The analyses included the overall training effects of each squad of the four squads (see table 2-1) and the effect of each designed goal (see table 2-2).

Analysis of the Overall Effects

Table 2-1： Statistics of overall effects of RWOM (semester one, school year 2008 —2009)



	1st	2nd	3rd	4th	5th	6th	7th	8th	Average
squad 1	21	23	22	24	26	27	28	28	24.875
squad 2	22	23	23	25	27	27	26	28	25.125
squad 3	22	24	23	25	26	28	29	29	25.75
squad 4	23	25	24	26	27	27	29	29	26.25
Average	22	23.75	23	25	26.5	27.25	28	28.5	25.5

Table 2-1 shows that the marks of the four squads obtained at the first case study were not high, with no group gaining marks more than 80% of the full marks (that is 24 or over out of the 30 full points). The results of the second and the third times showed that each squad had made some progress compared to their first performances, with squad 4 performing the best, achieving 80% marks or over for both times. The fourth case study saw the watershed of the achievements students obtained, with each squad getting 80% marks or over. Since the fourth time on, each squad remained making steady progress. When it came to the last three case studies, all squads gained 90% marks or over, with only squad 2 failing the seventh. More impressively, in the last two case studies, squad 3 and squad 4 both performed best, gaining almost full marks. What is worth noting is that the average marks are all over 80%, each squad's average marks had increased more than 3 points from their first performance.

These statistics show that, as they progressed through the case studies, the students did make comprehensive progress in their performances in 'solving' real world cases. The RWOM has achieved outstanding overall results in police cadet professional teaching and training programs.

Analyses of the Effects of the Six Assessment Items

In this paper, the records of squad 3 have been selected as the analysis unit (see Table 2-2), because the average marks (25.75) of squad 3 is the closest to the average marks (25.5) of the four squads. The statistics of table 2-2 shows that squad 3 students did not get very high scores in the first case study, with prominent weakness in the two assessment variables of 'analysing problems' and 'innovative thinking'. This phenomenon occurred in other squads as well. It was hypothesized that this phenomenon was attributed to the students being unfamiliar with the case study teaching method and their passive learning habits developed under Chinese traditional lecture-centered teaching methods. In responding to such hypotheses, the teacher made thorough and sincere comments and suggestions on each squad's written report of the case study and encouraged them to learn to 'fish for themselves instead of waiting to be fed by fishermen'. That means 'believe in yourself and do it yourself'.

Since the second case study, Squad 3 displayed great enthusiasm in discussion and improved their performances in group discussions to full marks and retained their enthusiastic participation from then on with only an exception for the third time. Similarly, their performances at writing discussion reports obtained full marks at the third case study and continued their excellent performance from then on. Their performances at employing criminal investigation measures stayed at a plateau of 4 points until the sixth case study in which they obtained full marks of 5, which indicated they had reached the level of being capable of employing all necessary criminal investigation measures depending on the concrete conditions of a specific case. In a similar vein, their abilities at 'analysing problems' and 'collecting evidence' reached the outstanding level at the seventh and sixth case studies respectively. Results showed that their progress at 'innovative thinking' was the slowest one. It was also the 'weakest aspect' of the students, who never gained full marks at this variable, though they had made some progress in the later training programs.

The statistics showed that the RWOM did help students improve their abilities at 'handling' criminal cases, it helped them link theory studies with 'real criminal investigation' practices. The students have not only consolidated their professional knowledge about criminal investigation, but also have developed their team spirit and abilities in organizing group discussions, which is also a very important element in criminal investigation practices. The pity was that the students failed to make conspicuous progress in 'innovative thinking'. Innovative criminal investigation mindset probably is the real challenge not only for students, but for teachers and the frontline police officers as well.

TIPS FOR IMPROVING THE RWOM

The RWOM has obtained noticeable achievements in Chinese police training programs, but there is still some space for improvement. According to our experiences, the updating of the cases and the updating of the teaching staff are the two major issues that need continuous efforts.

Updating the Cases

In the creation and development of the cases in the RWOM, since most criminal cases are provided by the frontline police agencies or downloaded from the TV and the internet ongoing programs, the updating of the case database, per se, is not a problem. However, some teachers do prefer to use their favorite cases, or some particular types of cases (e.g., those sensational murder or robbery cases). In the future teaching practices, stipulating some compulsory rules requiring teachers to update 30% or 40% of cases is deemed to be necessary.

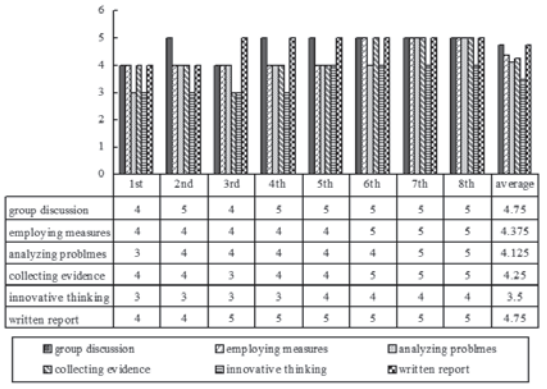
Updating the Teaching Staff

At present, teaching staff at Chinese police universities and colleges includes mainly graduates from law-related higher education institutes who have obtained masters' degrees or doctorates. Though they have learned certain theoretical knowledge, they are lacking in real police experience and professional skills, which to a great extent limits the effectiveness of them conducting efficient, accurate and profound criminal case analyses and summaries. According to the present requirements for the teaching staff further training and education at police colleges, the teaching staff is required to have 'experience' at the frontline police agencies for half or one year every three years. They can observe, participate in and help in all kinds of police actions, but they usually do not enjoy independent power of jurisdiction, that is the teaching staff is more like an observer than a real police officer. Problematically, the time span of a half or one year is usually too short for a teacher to experience some real full-scale criminal cases, which usually will take several months or even several years to complete. Therefore, it is hard to guarantee that the teaching staff obtains comprehensive and profound understanding of police practices in the real world through such a system of 'experience' or 'exercise' at frontline police agencies.

Certainly, the police universities and colleges usually invite some police experts from the frontline to give lectures, which to some degree will compensate for the weakness of teaching staff lacking real experience. However, such a lecture usually lasts about two or three hours only, focusing on introducing the investigation of one or two cases. However with this amount of time, it is hard for the frontline police officers to present all their enriched experiences to students and the teaching staff. Furthermore, many frontline police officers are not adept at abstracting themes and theories, so their lectures dwell more on perceptual experiences than on abstracting the perceptional experiences into rational theories.

To integrate the pros of frontline police officers with the strengths of the academic teaching staff, we suggest that a 'double-way staff exchange' system between the two agencies be established. On one hand, the police administrative authorities should regulate that the frontline police agencies must select some experienced police officers with higher capacities of summarizing experiences into theories or principles and send them to police colleges to give lectures for several months or one year. Once they complete such lectures successfully, they will be promoted to the next highest rank. Alternatively, a teaching experience of one year can be stipulated as a compulsory task for anyone in the frontline police agencies who is to be promoted to a senior position. Such regulations will not only improve the case-based police training programs, but also encourage the frontline police officers to make rational thinking about police work, which will certainly benefit the overall police work and all Chinese citizens in the long march of rule of law. On the other hand, police school teaching staff must, first of all, work at least two years at the frontline police agencies as real police officers before they are allowed to give formal class lectures. Following that, they are to experience police work at frontline for about one year every two or three years. This rotating model between the frontline police officers and the police school teachers must be institutionalized and implemented thoroughly and broadly, forming a sound and long-term circle. Only by doing this can the maximum effectiveness of the RWOM, as well as the overall effectiveness of police training be ensured.

Table 2-2 : Statistics of squad 3 case study training effects (semester one, school year 2008-2009)



	1st	2nd	3rd	4th	5th	6th	7th	8th	average
group discussion	4	5	4	5	5	5	5	5	4.75
employing measures	4	4	4	4	4	5	5	5	4.375
analyzing problmes	3	4	4	4	4	4	5	5	4.125
collecting evidence	4	4	3	4	4	5	5	5	4.25
innovative thinking	3	3	3	3	4	4	4	4	3.5
written report	4	4	5	5	5	5	5	5	4.75

CONCLUDING REMARKS

The RWOM does have many advantages in training police cadets, because 'using cases can be an invigorating approach to teaching, and can help your students take much more responsibility for their own learning in your class.'[14] But case studies should never totally replace theoretical lectures because 'cases are not necessarily the best way to communicate large amounts of new information.'[15] Furthermore, students usually need to grasp certain amounts of professional background knowledge before they are able to adequately employ theoretical knowledge to effectively solve a real case.

In other words, the RWOM must be integrated with theoretical lectures, but the latter goes first. Lectures tell students about the basic principles that have been accumulated and abstracted in criminal investigation practice. The major purpose of case studies is to test whether students are capable of employing these basic principles to the practice of criminal investigation. The purpose of mastering any principles or theories is to use them to solve practical problems. As Mao Zedong says, 'If we have a correct theory but merely prate about it, pigeonhole it and do not put it into practice, then that theory, however good, is of no significance.'[16] Alfred North Whitehead also notes, 'The details of knowledge which are important will be picked up *ad hoc* in each avocation in life, but the habit of the active utilisation of well understood principles is the final possession of wisdom.'[17] The RWOM has also proved to be an effective way for testing the capacities of police cadets in connecting their criminal investigation theoretical knowledge obtained from lectures and books with 'investigating' the criminal cases in the real world to show that they have possessed the 'wisdom' needed in criminal investigation.

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EXPLORATORY FACTOR ANALYSIS OF POLICE PROFESSIONAL QUALITY

Associate Professor **Shuo Lium**, MA
Yuan Yuan, MA
Department of Public Security Intelligence,
National Police University of China, Shenyang, China

Abstract: To a great extent, the effects of criminal investigation conducted by criminal police determine if criminal judicial activities are of success. It is a common view that criminal police should have good professional qualities. Therefore, this paper used factor analysis to conduct a relatively systematic empirical research on the professional quality of criminal police and its structure, with the purpose of providing grounds for their training, selection and management. The findings show that the professional quality of police can be summarised as seven modules. In terms of significance, they include investigation thinking system, investigation information system, investigation behavioural competency system, law enforcement concept system, self adjustment and control system, keenness and alertness as well as autonomy and courage. The system is orientated and dominated by its concept system (i.e., morality, dedication, etc.), driven by vocational personality (i.e., autonomy and courage, keenness and alertness, etc.), supported by self adjustment and control system (i.e., self consciousness, pressure relief, etc.), and guaranteed by behavioural competency system (i.e., thinking, behaviour, information).

Keywords: criminal police, professional quality, exploratory factor analysis.

INTRODUCTION

Criminal investigation activity of criminal police is one of the hottest issues for the public. With the continuous elevation of criminal activities in the modern society, there is an increased demand by the public for the social security. Criminal justice is regarded as the bottom line of social justice, and criminal investigation is the basic component of this system; especially in the countries implementing investigation selfish departmentalism, the effects of criminal investigation determine if criminal judicial activities are of success to a great extent[1]. It can be seen that the criminal police undertake Herculean task and dedicate a lot to their work, which therefore calls for their good professional qualities. However, there has been rare systematic empirical research on the professional quality of criminal police and its structure by now[2], as well as how to conduct their psychological training and selection. Therefore, this study was conducted and sought to address the issues mentioned above.

OBJECTIVES

The objectives of this research are as follows:

- Empirical research methods were employed to explore the structure of the professional quality of criminal police.
- To investigate the difference in different groups' perception of the professional quality of criminal police and its structure.
- To offer theoretical and empirical research support for developing the criterion of criminal police selection and training.
- To offer theoretical and empirical evidence for the educational reform of the professional quality of criminal police.

1 Miao, W. M. Police Skills Practical Training Textbook, *Fudan University Press, 2011*, p. 178.
2 Chinese police academia mainly employs qualitative methodology to conduct researches at present.

METHODOLOGY

Define the Professional Quality of Criminal Police and Its Structure

Based upon the research results of public security science and police psychology,[3] the professional quality of criminal police was defined in this study as the stable professional qualities that criminal police should possess in investigative activities.

The professional quality of criminal police refers to the components of criminal police professional quality and their interrelation. This structure is determined by the tasks and investigative activities of criminal police.

Procedure

Aims

Through literature review and interview, 'professional quality of criminal police questionnaire' was developed; the indicators of criminal police professional quality were determined by testing, and the professional quality of criminal police was also discussed.

Participants

Research participants were from different groups related to the police, including on-the-job criminal police, investigation major students (pre-service criminal police), leaders of pubic security organs, investigation major teachers, criminal techniques personnel and criminal techniques major students, etc. The number of valid subjects was 636.

Table 1 - Subjects Distribution

Sources of Subjects	Investigation Major	Techniques Major	Others	Total
From Institutions	213	75	35	323
From Practice	152	118	43	313
Total	365	193	78	636

Test on site

Through group testing, subjects were required to complete answers in twenty minutes. SPSS FOR WINDOWS (10.0) was used in the computer to process and analyse the data.

RESULTS

Applicability of Factor Analysis

In order to obtain a stable correlation matrix estimate, N in raw data matrix should be larger, as smaller sample can make the estimate of correlation coefficient instable and more fluctuated. The sample of raw data in this study was 636, N≥500, which is considered to be 'good' based on experience.

The percentage of 44 traits listed on the questionnaire was tested using Bartlett's Test of Sphericity, and the results were: Bartlett's value = 10489.617, P = 0.000 < 0.01 (significance level); this indicated that overall correlation matrix was not unit matrix, therefore, factor analysis can be employed.

Meanwhile, the result of Kaiser-Meyer-Olkin (KMO) was 0.939, it also proved that using factor analysis was appropriate in this test.

3 Yan, K., & Wu, N. Police Psychology Textbook. *Nanjing University Press, 2011,* p. 356.

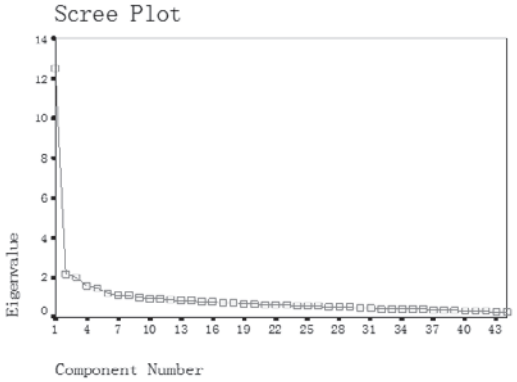
Table 2 - Bartlett's Test of Sphericity

Bartlett`s Test of Sphericity	Approx. Chi-Square	1405.45
	df	946
	Sig	.000

Determine Factors

It can be seen in the Scree Plot (Figure 1) that the grade line slope is comparatively flat starting from the seventh factor, therefore, comparing seven factors was appropriate.

Figure 1 - Scree Plot of Factor Analysis



The communalities of half variables were more than 0.5 (Table 5), and the communalities of most of variables were no less than 0.4, which indicated that 7-factor model basically would be able to represent data properly.

Based upon the results of Table 5, principle component analysis and Varimax factor rotation of the data tested were conducted, and the accumulated variance contribution rate was 50.378% (Table 3). According to the factor loading value of traits in main factors, the traits were selected by rejecting those with smaller factor loading value (<0.316) including T12, T24, T32 (Table 4), as a result, the number of traits is reduced in the professional quality evaluation of excellent criminal police.

Table 3 - 7 Factors Total Explained Variance

Factor	Eigenvalue	Explained Variance (%)	Accumulated Explained Variance (%)
F1	12.528	28.473	28.473
F2	2.168	4.927	33.399
F3	2.018	4.586	37.985
F4	1.611	3.611	41.646
F5	1.484	3.372	45.018
F6	1.227	2.788	47.807
F7	1.131	2.572	50.378

Table 4 - Total sample 7 Component Matrix

Traits	Factor Loading						
	1	2	3	4	5	6	7
T36	.749						
T21	.735						
T26	.695						
T33	.540						
T38	.530						
T4	.516						
T29	.474						
T23	.404						
T43		.706					
T44		.692					
T31		.539					
T35		.501					
T34		.489					
T27		.421					
T28		.380					
T24		.312					
T7			.692				
T17			.544				
T9			.469				
T8			.428				
T12			.311				
T15				.650			
T16				.633			
T13				.390			
T1					.645		
T3					.617		
T6					.558		
T11					.516		
T2					.458		
T20					.431		
T14					.335		
T32					.316		
T39						.669	
T40						.609	
T37						.486	
T22						.457	
T42						.413	
T30						.403	
T5							.673
T10							.545
T18							.464
T25							.409
T41							.383
T19							.353

Name Factors

The purpose of factor analysis is not only to extract common factors, but also to understand each factor's meaning, after determining the parameter estimation method and factor rotation method, it seems very important to use professional knowledge to make a reasonable and creative explanation. With respect to the results shown in Table 4, the explanation of seven factors is shown below.

Table 5 - Total Sample Factor Analysis Explanation

Factor Number	Factor Name	Traits	Factor Loading	Communalities
1.	Law enforcement concept	T36 Enforce the law impartially	.749	.671
		T21 Observe disciplines &Obey laws	.735	.630
		T26 Integrity &Self-discipline	.695	.598
		T33 Responsible	.540	.570
		T38 Dedicated	.530	.602
		T4 Love detection job	.516	.538
		T29 Enterprise	.474	.528
		T23 Hardworking &Determined	.404	.444
2.	Self adjustment &control system	T43 Impersonality & Reason	.706	.612
		T44 Adaptability	.692	.567
		T31 Emotional stability	.539	.446
		T35 Prudence	.501	.454
		T34 Pressure resistance	.489	.411
		T27 Patience & Tenacity	.421	.517
		T28 Confidence	.380	.463
		T23 Self-respect &Self-dignity	.312	.500

3.	Autonomy & Courage	T7 Open & Energetic	.692	.526
		T17 Courage & Take risks	.544	.411
		T9 Independent thinking &Work capability	.469	.419
		T8 Willing of self-reflection& summarising experiences	.428	.423
4.	Investigation information system	T15 Ability of constantly updating knowledge	.650	.567
		T16 Awareness & Capability of obtaining criminal information	.633	.525
		T13 Capability of collecting & handling evidence	.390	.371
5.	Investigation thinking system	T1 Judgement	.645	.467
		T3 Meticulous o bservation ability	.617	.486
		T6 Resourcefulness	.558	.507
		T11 Ability of gaining insights into others' mind	.516	.429
		T2 Smart astute &Quick response	.458	.496
		T20 Ability to comprehensively analyse cases	.431	.460
		T14 Abundant imagination	.335	.386
6.	Keenness & alertness	T39 Foresight	.669	.607
		T40 Decisiveness	.609	.566
		T37 Flexible & Realistic	.486	.389

		T22 Inspired &Accurate Intuition	.457	.487
		T42 Sceptical & Alert	.413	.521
		T30 Innovation spirit	.403	.489
7.	Investigation behavioural competency system	T5 Self-protection awareness &ability	.673	.511
		T10 Strong legal consciousness	.545	.563
		T25 Interpersonal skills	.409	.540
		T18 Communication skills	.464	.590
		T41 Writing skills	.383	.401
		T19 Self-control ability	.353	.500

Traits with larger factor loading value in Factor 1 included 'enforce the law impartially', 'observe disciplines and obey laws', 'integrity and self-discipline', 'responsible', 'dedicated', 'love detection job', 'enterprise', and 'hardworking and determined' etc., which present the law enforcement concept that criminal police are required to abide in their work.

Traits with larger factor loading value in Factor 2 were 'impersonality & reason', 'adaptability', 'emotional stability', 'prudence', 'pressure resistance', 'patience and tenacity', 'confidence', and 'self-respect and self-dignity' etc., and these features are physiological self adjustment when the criminal police face all sorts of pressures, therefore, they were named as self adjustment and control system.

Traits with larger factor loading value in Factor 3 included 'open and energetic', 'courage and take risks', 'independent thinking and work capability', and 'willing of self-reflection and summarising experiences' etc., which demonstrate professional quality of criminal police's initiative and independence, and were named as autonomy and courage.

Traits with larger factor loading value in Factor 4 included 'ability of constantly updating knowledge', 'awareness and capability of obtaining criminal information', and 'capability of collecting and handling evidence' etc., and they exhibit the information sensitivity of criminal police, namely investigation information system.

Traits with larger factor loading value in Factor 5 were 'judgement', 'meticulous observation ability', 'resourcefulness', 'ability of gaining insights into others' mind', 'smart astute and quick response', 'ability of comprehensively analyse cases', and 'abundant imagination' etc.; they are related to the investigation thinking ability of criminal police, therefore, they were named as investigation thinking system.

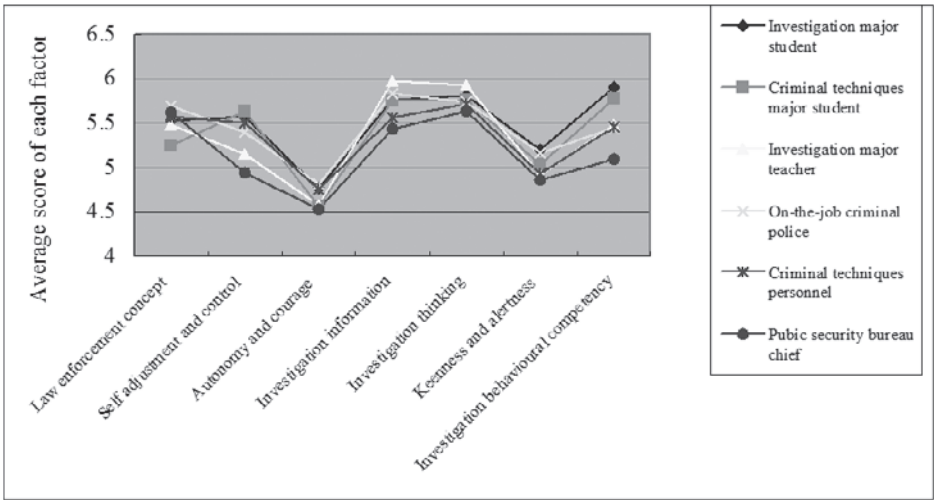
Traits with larger factor loading value in Factor 6 include 'foresight', 'decisiveness', 'flexible and realistic ', 'inspired and accurate intuition', 'sceptical and alert', and 'innovation spirit' etc., which are the occupational personalities of criminal police, and were named as keenness and alertness.

Traits with larger factor loading value in Factor 7 were 'self-protection awareness and ability', 'strong legal consciousness', 'interpersonal skills', 'communication skills', 'writing skills', and 'self-control ability'; they are mainly about the enforcing laws capabilities of criminal police in criminal investigation, therefore, they were named as investigation behavioural competency system.

Difference in Different Groups' Perception of Criminal Police Professional Quality on Level of Factors

In order to reveal the implicit views on professional qualities of different groups of criminal police straightforwardly and visually, the score of different groups on each factor was specially displayed by the profile chart below (Chart 1). As it can be seen, the score trends of seven factors were basically the same among investigation major students, criminal techniques major students, investigation major teachers, on-the-job criminal police, criminal techniques personnel and public security bureau chiefs; the score of investigation thinking factor was the highest, for the quality of investigation thinking is the principal professional requirement for the excellent criminal police. Then the factors scoring from high to low in sequence were investigation information system, investigation behavioural competency system, law enforcement concept system, self adjustment and control system, keenness and alertness, and autonomy and courage with the lowest score. It can be found in the results of sorting seven factors by their significance to these groups, and the sort order of different groups was not exactly the same, which indicated that each group focused on the different professional quality. The score of each factor's significance was the highest to investigation major students, later followed by on-the-job criminal police, criminal techniques major students, investigation major teachers, criminal techniques personnel and public security bureau chiefs who were with the lowest score, which might indicate each group's answering bias.

Chart 1 - Each Factor Score of Different Groups



Difference in Different Groups' Perception of Criminal Police Professional Quality on Level of Items

Besides the factor analysis, this study analysed 44 traits (psychological features) of seven modules as well.

Table 6 - Sort the Mean of Each Item to Different Groups

Sort Order	Total N=636		Investigation major student N=213		Criminal techniques major student N=75		Investigation major teacher N=35		On-the-job criminal police N=152		Criminal techniques personnel N=118		Public security bureau chief N=43	
	T*	M*	T	M	T	M	T	M	T	M	T	M	T	M
1	1	6.22	5	6.39	5	6.52	10	6.40	1	6.30	3	6.40	33	6.00
2	3	6.21	10	6.28	1	6.44	13	6.34	20	6.30	33	6.15	20	5.9
3	20	6.17	1	6.18	3	6.19	20	6.31	3	6.25	1	6.14	13	5.95
4	5	6.13	20	6.17	32	6.15	3	6.29	33	6.23	20	6.12	1	5.93
5	10	6.07	3	6.17	34	6.09	1	6.17	10	6.03	5	5.93	23	5.88
6	33	6.06	13	6.09	10	6.08	16	5.97	13	6.02	13	5.91	3	5.88
7	13	6.03	33	5.98	20	5.99	5	5.94	4	5.89	32	5.85	2	5.86
8	32	5.86	34	5.96	28	5.93	33	5.89	11	5.88	36	5.83	4	5.86
9	34	5.83	32	5.93	33	5.92	11	5.89	5	5.86	9	5.81	10	5.84
10	36	5.76	25	5.87	13	5.91	36	5.77	36	5.82	10	5.74	5	5.78
11	9	5.75	28	5.85	44	5.88	32	5.77	34	5.81	34	5.74	36	5.65
12	11	5.75	36	5.81	9	5.76	23	5.74	9	5.80	28	5.69	29	5.65
13	28	5.72	11	5.80	19	5.75	2	5.74	2	5.78	44	5.69	6	5.65
14	2	5.71	44	5.76	15	5.73	9	5.69	16	5.73	29	5.68	32	5.63
15	44	5.60	9	5.75	2	5.67	6	5.66	28	5.71	21	5.63	38	5.58
16	29	5.56	2	5.72	11	5.64	15	5.63	12	5.70	11	5.63	40	5.49
17	16	5.55	19	5.71	31	5.63	14	5.60	32	5.69	23	5.58	9	5.49
18	23	5.55	41	5.68	16	5.62	21	5.54	29	5.64	2	5.58	11	5.41
19	15	5.54	40	5.62	43	5.53	28	5.54	40	5.63	15	5.54	12	5.40
20	4	5.54	43	5.61	40	5.49	4	5.54	23	5.63	27	5.52	21	5.37
21	40	5.52	15	5.59	36	5.48	34	5.43	6	5.51	35	5.47	34	5.33
22	21	5.49	16	5.59	25	5.47	40	5.40	21	5.51	43	5.43	27	5.23
23	19	5.48	29	5.56	42	5.47	12	5.31	15	5.47	19	5.38	16	5.19
24	41	5.43	4	5.54	41	5.47	26	5.26	44	5.47	6	5.38	15	5.16
25	27	5.43	23	5.54	18	5.41	19	5.23	27	5.45	41	5.36	39	5.05
26	6	5.42	27	5.51	24	5.41	18	5.20	38	5.41	4	5.29	44	5.02
27	25	5.40	18	5.49	35	5.37	27	5.11	26	5.39	40	5.27	31	5.00
28	31	5.38	21	5.46	29	5.35	29	5.11	31	5.39	31	5.26	28	4.98
29	43	5.34	31	5.46	21	5.32	44	5.11	41	5.39	25	5.26	19	4.95
30	12	5.29	42	5.41	27	5.25	31	5.09	19	5.31	12	5.25	26	4.93
31	26	5.25	6	5.35	37	5.24	25	5.09	39	5.26	26	5.25	42	4.84
32	18	5.22	24	5.31	6	5.20	30	5.06	35	5.19	16	5.24	41	4.84
33	42	5.20	37	5.26	8	5.19	39	5.03	30	5.16	24	5.20	43	4.81
34	35	5.20	26	5.25	26	5.15	43	5.00	24	5.15	38	5.16	14	4.77
35	24	5.20	8	5.22	23	5.11	41	5.00	42	5.14	8	5.14	25	4.65
36	38	5.15	35	5.16	4	5.07	35	4.97	25	5.10	18	5.11	24	4.63
37	37	5.06	12	5.15	30	4.88	38	4.94	37	5.08	30	5.07	37	4.60
38	8	5.05	14	5.13	12	4.83	24	4.94	18	5.05	39	4.99	30	6.00
39	30	5.04	38	5.10	14	4.83	42	6.40	43	5.03	42	4.97	22	5.98
40	39	5.03	30	5.08	39	4.75	8	6.34	14	4.93	37	4.86	18	5.95
41	14	4.99	39	4.98	38	4.57	37	6.31	8	4.87	14	4.81	35	5.93
42	22	4.67	22	4.88	22	4.44	22	6.29	22	4.76	22	4.39	8	5.88
43	7	4.09	7	4.24	7	4.08	7	6.17	7	4.05	7	4.07	7	5.88
44	17	3.46	17	3.51	17	2.99	17	5.97	17	3.64	17	3.47	17	5.86

*T: Trait M: Mean

The mean of each trait (psychological feature) was mostly above 5, therefore, it can be seen that most of traits are very important to criminal police. The first ten traits were analysed in this study, which were shown in Table 7 below.

Table 7 - Sort the First 10 Traits (psychological features)

Sort Order	Professional Quality	Factor Belonged
1.	Meticulous observation ability	Investigation thinking system
2.	Judgement	Investigation thinking system
3.	Ability of comprehensively analyse cases	Investigation thinking system
4.	Self-protection awareness & ability	Investigation behavioural competency system
5.	Strong legal consciousness	Investigation behavioural competency system
6.	Responsible	Law enforcement concept
7.	Capability of collecting & handling evidence	Investigation information system
8.	Thorough thinking	Investigation thinking system
9.	Pressure resistance	Self adjustment &control system
10.	Enforce the law impartially	Law enforcement concept

It can be seen in Table 7 that there were four traits that belong to one significant factor - investigation thinking system. 'Self-protection awareness and ability' was regarded as the most important trait of investigation behavioural competency system. The most important one of self adjustment and control system was 'pressure resistance'. 'Enforce the law impartially' was the most significant in the factor of law enforcement concept.

The requirement characteristics of different groups on criminal police professional quality were shown in the table above, and most of the traits ranking ahead were related to the ability aspects.

Investigation major students and criminal techniques major students put 'Self-protection awareness and ability' in the first place, and it was closely related to the increasing self-protection courses in the criminal police education lately. In the last few years, with the increase of violent crimes, the number of police particularly criminal police casualties in executing tasks has been increasing year by year, therefore, public security decision-making organs and police education sectors increased the criminal police training on the self-protection awareness and ability; the participants in the study are just the new generation of criminal police receiving this kind of formal education, as a result, self-protection awareness and ability become the professional qualities that pre-service criminal police particularly focus on developing. 'Judgement' was put in the first place by on-the-job criminal police, which is closely related to the routine work of criminal police. However, criminal techniques personnel regarded 'meticulous observation ability' as the important trait, which accords with their professional characteristics. Due to the understanding of underlining investigation procedure, investigation major teachers emphasised 'strong legal consciousness' more. The leaders of public security organs, from the perspective of leadership, took responsibility as the most important trait.

These traits that ranked the last ten from low to high in sequence were 'courage and take risks', 'open and energetic', 'inspired and accurate intuition', 'abundant imagination', 'foresight', 'innovation spirit', 'willing of self-reflection and summarising experiences', 'flexible and realistic', 'dedicated' and 'self-respect and self-dignity'. With regards to those traits, each group put 'open and energetic' and 'courage and take risks' in the last place, which is different from the opinion that extraverted temperament contributes to engaging in criminal police profession. As for 'courage and take risks', through interviewing participants, their opinions were as followed. First of all, criminal police do not advocate using brawn rather than brain; secondly, their work is mainly trivial, and they rarely get into the dangerous circumstances, this trait therefore seemed not particularly important to an excellent criminal police.

DISCUSSION

Applicability of Analysis Results

Four factors in this model were basically no different from the research conception of literature review, which included law enforcement concept system, self adjustment and control system, investigation thinking system and investigation behavioural competency system.

In another three factors obtained through factor analysis, autonomy and courage as well as keenness and alertness can be regarded as professional personality of criminal police in theory. In

addition, investigation information system was stand-alone, which indicated that in the modern investigation system, investigation information system is very crucial dimension and should draw attention, furthermore, this has been proved by the reality of current police investigation practice.

7-factor model only explained 50.378 % of total variance, 49.62% of variance was due to the unexplored special factors in factor exploratory model. There are many variables with different significance that have an impact on the professional quality of criminal police, this study, therefore, rejected related variables with comparatively less influence in the development and statistical processes of questionnaire, and these rejected variables were among special factors, as the result, they increased the speciality.

Characteristics of criminal police

Comprehensiveness

The professional quality of criminal police covers extremely abundant contents. It involves in a lot of contents of intelligence and non-intelligence factors, which is in accordance with the prior researches. This, therefore, demonstrates the colourful spirit of criminal police.

Distinctiveness

Due to the professional characteristics of criminal police, its professional quality should possess its own characteristics distinguished to other groups', so as to accommodate the criminal police investigative activities. It can be seen in the results of this study that both criminal police professional quality and its structure and the significance between them, all reflected the professional characteristics of criminal police with strong distinctiveness.

Structure

Criminal police professional quality has a stable structure, and this structure is scientifically reasonable and its components are mutually supportive to each other. The criminal police professional quality model presents the spiritual world that consists of seven modules, which is the criminal police personality system. These seven dimensions are relatively independent, and each has its own specific meaning, status and role. However, they are not isolated from each other, or simply summed up or mechanically combined together, but are an organic unity of relating to each other, interacting, inter-restricting and interpenetrating.

Stratification

Criminal police professional quality is a well-layered system, and the professional quality requirements for the different types and different working stages of criminal police are not the same. Even as far as the same type and the same working stage of criminal police group are concerned, there is not only a unified professional quality requirement. Different groups have different understanding of different factors and traits.

The results showed that the pre-service and on-the-job criminal police, teachers and students, criminal police and criminal techniques personnel, as well as criminal police and the leaders of public security organs, have various perception difference on the criminal police professional quality, which precisely demonstrated its stratification.

Development

As time advances, criminal police professional quality is constantly developing, and will gradually be endowed with new contents. It was found in this study that self adjustment and control system of criminal police is an important factor, and is very significant content especially for the pre-service criminal police, which should not be underestimated for the on-the-job criminal police either. As for the aspect of work capability, through factor analysis, investigation information system was found to be a relatively distinctive factor, which precisely reflected the professional characteristics of criminal police; with hope of being an excellent criminal police, it is required to have good information collection and processing abilities. In a sense, acquiring leads, obtaining information and collecting evidence are the core work of criminal police, and it coincides with the requirements of gaining evidence and information consciousness that public security decision-making organs and theoretical study have advocated recently[4], therefore, the new development of investigation theory was also verified by psychology research in this study.

4 In 2011, the Ministry of Public Security of the People's Republic of China brought forward to launch 'Synthesis Battle, Science and Technology Battle, Evidence Battle and Information Battle' in criminal investigation nationwide in order to enhance the standard of cracking cases and law enforcement.

CONCLUSION

Nowadays, with the continuous elevation of criminal activities in the modern society, there is an increased demand by the public for the social security; therefore, criminal investigation activity of criminal police becomes one of the hottest issues for the public. It is without doubt that the criminal police undertake Herculean task and dedicate a lot to their work, which, therefore, calls for their good professional qualities. This paper conducted a relatively systematic empirical research on the professional quality of criminal police and its structure, with the purpose of providing grounds for their training, selection and management. The results suggest that the professional quality of criminal police consists of seven modules, in terms of significance, they include investigation thinking system, investigation information system, investigation behavioural competency system, law enforcement concept system, self adjustment and control system, keenness and alertness as well as autonomy and courage. The system is orientated and dominated by its concept system (i.e., morality, dedication etc.), driven by vocational personality (i.e., autonomy and courage, keenness and alertness, etc.), supported by self adjustment and control system (i.e., self consciousness, pressure relief, etc.), and guaranteed by behavioural competency system (i.e., thinking, behaviour, information). Although the study was conducted in China, it is applicable to the police all over the world.

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RESEARCH ON CONSTRUCTING DYNAMIC POLICING CONTROL SYSTEM OF CRIMES

Lecturer **Yao Zhang**, MA
National Police University of China, Shenyang, China

Abstract: Dynamic policing control system of crimes is an indispensable part of modern policing system, which includes dynamic balance concept, crime control concept, quick-response concept and cost and effect concept. Establishment and perfection of dynamic policing control system of crimes will help promote policing reforms in China, enhance effectiveness of police work, and guarantee a secure social environment.

Keywords: Dynamic policing, Control system, Crimes, Research.

INTRODUCTION

Dynamic policing control system of crimes is a kind of operation mode. Based on the tasks of crime prevention and control and the requirements of social emergencies, dynamic policing control system of crimes aims to utilize present policing resources, analyze guidelines, perform policing control in dynamic environment, deploy police forces scientifically, place limited police forces where they are most needed so as to crack down on crimes and suppress criminal offences effectively. It falls into three sections: basic concepts of dynamic policing control system of crimes, features of dynamic policing control system of crimes and strategies in constructing dynamic policing control system of crimes.

Basic Concepts of Dynamic Policing Control System of Crimes

Dynamic policing control system of crimes is a new type of police operation system, which is composed of dynamic balance concept, crime control concept, quick-response concept and cost and effect concept.

(a) Dynamic Balance Concept

The goal of dynamic policing control system of crimes is to have alteration according to changes and obtain balance in dynamic developments. On one hand, it emphasizes adaptation and alteration during development process and requires the police to base the strategies on changes, for crime tendency is changing all the time. So the police control measures must change in accordance with the change of crime tendency and they should be flexible, mobile and adaptive. On the other hand, it emphasizes the overall but not partial mechanical balance. The police should apply all kinds of measures comprehensively on the basis of the overall situation of controlling crimes so as to obtain effective preventive and controlling result. Realization of dynamic balance has high demands for institution building and capacity building. While the police go ahead with constructing dynamic policing control system of crimes, they should attach great importance to the fact that police control work should keep pace with criminal offence trend and improve the ability of police joint operations.

(b) Crime Control Concept

The police should enhance the overall competence of cracking down on crimes and preventing crimes by way of controlling crimes with maximum, which is the basic guiding idea for dynamic policing control system of crimes. As a social phenomenon, committing crimes has a certain normal level in certain social time and space. Control of crimes is a response to crimes. Measures to control crimes, i.e. anti-crime measures, can derive from the country, such as the police, judicial authority, government or it can derive from society, such as labor union, schools and families. Exploring and practicing dynamic policing control system of crimes should be based on the following crime control notions. Firstly, crimes are social occurrences which happen in the city and

therefore they have time clues, cause and result relationship and regional features. The future development tendency can be predicted through certain ways and the prediction result can provide strategy changes to task performance; secondly, crimes committed by criminals can be reduced by the interaction of interior and exterior influence. The subjective efforts of the police can decrease crime rate, enhance the public sense of security and reduce social harm inflicted by crimes. Thirdly, the police should utilize present police resources to establish police control system in dynamic environment according to urban crime prevention tasks and requirements of social emergencies. In this way the limited police forces can be scientifically deployed where they are most needed so as to suppress the occurrence of crimes.

(c) Quick Response Concept

Quick response is the most basic requirement to carry out police dynamic control system. Quick response means the police should deal with all crimes or emergencies in administration areas all day long, or provide rapid reaction to and effective disposal of emergency calls from individual citizens or a group of citizens. It pays attention to communication, traffic modernization and instant disposal of the emergency call. At the same time, it uses response time to measure police effectiveness. In the 1960s and 1970s, the United Kingdom and the United States established and perfected police alarm system in accordance with the increasing tendency of dynamic social alarm call for help. The police in these two countries formed high-effective and quick police response system and realized unified command and control of police information on crimes. One of the important goals to carry out dynamic policing control system is to improve the police ability to respond quickly, to effectively coordinate operations of all police forces, to enhance the cooperation between different police forces, and to improve the police efficiency in preventing dynamic crimes, providing public rescue and service, and keep the public sense of security.

(d) Cost-Effective Concept

One basic concept of dynamic policing control system is to obtain maximum social benefits with minimum investment costs. The theory believes that investment cost of police endeavors should be in proportion with output benefits. But for a long time the police in China have used the method of deploying large number of police forces in dealing with crimes. Though practices prove this method is effective, the cost is too high and it will not last long because the police forces in China are limited. So, the dynamic policing control system insists on the priority of effectiveness. It demands that the police switch to work method, deploy limited police forces scientifically, and achieve best result of cracking down on crimes, obtain best judicial, social and political benefits with few police forces and low economic cost.

FEATURES OF DYNAMIC POLICING CONTROL SYSTEM OF CRIMES

(a) Intelligence Information Should Dominate Dynamic Policing Control System of Crimes

Dynamic policing control system of crimes should be based on accurate and timely intelligence information and early warnings. Throughout world police development history, the Western countries have set up the idea of intelligence information dominating police work when dealing with criminal development process. Created by the New York Police Department, computerized statistical mode can enter crime numbers, arrest activities, crime sites, crime periods, victim conditions and other data into computer and make an electronic map. The map can reflect an established and developing crime trend, obvious changes and abnormal situations, which can guide the operations of the police.

(b) Quick Response Should Be the Core of Dynamic Policing Control System of Crimes

The capability of quick and timely disposal is directly influencing the effectiveness of dynamic policing control system of crimes. The core of dynamic policing control system of crimes is to

enhance the police overall competence of dealing with crimes through quick response and rigid control. In dynamic policing control system of crimes, all police departments and all police forces must highlight "quickness". When preventing crimes, the police should study regular crime patterns, make corresponding preventive and controlling strategies quickly so as to have more active prevention result. When combating crimes, the police should at least keep pace with the criminals and be quick enough to grasp the chance, utilize the clues and arrest the criminals in the shortest time after crimes have happened. When dealing with emergencies, the police should also emphasize quickness, control the situation as early as possible, and avoid greater losses. The quickness in quick response emphasizes the overall quickness of the police in order, including quick reaction, quick function and quick operation. But one point should be mentioned: dynamic situation also includes static situation. While the police emphasize quickness, they must pay attention to the combination of dynamic and static situations. The police should also make good use of surveillance, patrol stations, and monitoring videos.

(c) High Effectiveness Should Orient Dynamic Policing Control System of Crimes

Optimization of police operation and enhancement of police effectiveness is one important orientation of dynamic policing control system of crimes. According to the criminal development tendency, dynamic policing control system of crimes should make adjustments in early warning, command, deployment of police forces, and joint operations in order to realize optimal combination of police structure. This practice can help the police abandon old concepts, practices and systems. In addition, it can promote police reforms, help transform the police from quantity and scale into quality and effectiveness, and achieve the goal of leapfrog development of police quality construction. More importantly, it can help the police meet the demand of safeguarding society's security and stability, reinforce social control, make the shift from static measures to dynamic measures of crime control and the change from extensive movement style to intensive professional style.

(d) Cracking Down on Crimes in Action Should Be the Aim of Dynamic Policing Control System of Crimes.

The capacity of cracking down on crimes in action can directly reflect the police capacity to deal with criminal offences. The aim of practicing dynamic policing control system of crimes is to have the intelligence information as the breakthrough and improve the police capacity of cracking down on crimes in action. In dynamic social environment, forcible seizure and robbery and other frequently-occurring crimes account for a large proportion of criminal offences, seriously affecting public sense of security. Dynamic policing control system of crimes should examine the society as a whole, emphasize active attack, judge attack direction, discover blind spots of criminal offences, strengthen pertinence and effectiveness of police force deployment and clarify the aim of police work. Reinforcing dynamic police control can increase the rate of cracking down on crimes in action, increase the rate of solved criminal cases, reduce the number of the potential criminals in society, display powerful strength of the police, shock criminals, and ultimately control and prevent criminal cases effectively.

(e) Modern Technology Should Be the Support of Dynamic Policing Control System of Crimes.

Without modern technology as the support, dynamic policing control system of crimes cannot be realized. World technology reforms, with informatization in their core, supply the historic condition for transformation of policing construction mode. Specifically speaking, the development of modern technology provides the following conveniences for implementing dynamic policing control system. Firstly, police intelligence information provides technological support for realization of early warning and scientific command. Secondly, the improvement of alarm call command hardware facility offers technological platform for command accuracy and police quick response. Thirdly, the GPS technique, the GIS information system (electronic map) and the wireless communication technology guarantee timely operations of the police and synchronism of surveillance in complex areas.

STRATEGIES IN CONSTRUCTING DYNAMIC POLICING CONTROL SYSTEM OF CRIMES

(a) Dynamic Early Warning

Dynamic early warning means that the police analyze criminal regular patterns in dynamic social environment, they predict development tendency and changes of crimes by way of scientific methods and provide decisions and working mechanism for cracking down on and preventing crimes. Dynamic early warning is the premise for dynamic policing control system of crimes to function well. It includes intelligence department of command center, real-time monitors, and crime dynamics, applies scientific methods to analyze and judge crime causes and their relations, predicts crime developing and changing trends and forms the workflow that guides practical police intelligence work. Dynamic early warning helps promote intelligence information orienting police work and makes fighting against crimes more targeted and more effective.

- Information Network Construction Functions as the Base so as to Broaden the Sources of Police Intelligence Information.

Construction of police intelligence information network is of basic and guiding importance. Police agencies at different levels should establish information gathering system. Firstly, technological intelligence channels should be perfected. All information obtained from 110 alarm calls, criminal cases and public security cases should go through 110 case supervision system. The information can be automatically generated by way of criminal 2000 real-time management system and then be fed back to the intelligence department of command center. Secondly, manpower police intelligence channels should be actively explored. Pieces of intelligence information concerning dynamic crimes, which are gathered by criminal police officers, cyber police officers, patrol police officers, police station officers and informants at work, are reported to the intelligence department of command center at an upper level. Thirdly, channels of intelligence exchange should be strengthened. Command centers at different levels should work according to urban public security agency intelligence information collaboration mechanism, promote regular intelligence exchange and communication with neighboring police agencies. Fourthly, channels for the public to report clues about crimes should be widened. The police should establish and perfect reporting system by way of 110 alarm calls, internet, mobile phone messages and other means in order for the public to report criminal offences to the command center and criminal investigation departments more conveniently and more timely.

- Management of Police Intelligence Information Functions as the Support to Guarantee Accurate and Timely Transmission of Police Intelligence

Police agencies at all levels should establish an intelligence information center at the command center and corresponding institutions should be established with professional staff. In accordance with criminal development requirements, the police agencies at all levels should formulate uniform standards to identify, collect and transmit police intelligence, make guidelines for submitting police intelligence suited for current police institution structures and regulate process flow of police intelligence hierarchy processing. Besides, the police agencies at all levels should establish assessment system for police departments which bear the responsibility of submitting police intelligence, realize standard input and barrier-free transmission of police intelligence, guarantee efficient collection, uniform management and instant share of intelligence information of all types. Police intelligence information centers should classify different dangerous levels of police intelligence according to the nature, condition of occurrence and development of police intelligence information. Police intelligence information centers should also regulate submitting time of police agencies at all levels according to emergency degree of police intelligence information. In addition, police intelligence information centers should establish expert bank or be networked with present expert bank in order to improve the accuracy, effectiveness and standards of dealing with important police intelligence information.

• Analysis And Judgment of Police Intelligence Information Works as the Foundation for the Police to Target on Crimes That Need to Be Prevented and Controlled.

The police should work from practical demand and insist on cooperation with research institutions to develop all kinds of analysis software and construct multi-level and multi-form analysis and judgment systems of police intelligence information. Firstly, the police should have an overall analysis and judgment based on real-time data. On the basis of 110 alarm call data, the police should utilize 110 case supervision system, project collected police intelligence information on the city map according to the time, places and types of crimes, and produce a GIS information map indicating social crime occurrences in the city. In this way the police can understand time-and-space distribution of crimes and offences and improve reliability of subsequent police intelligence information work. Secondly, police intelligence information should be classified into different degrees, such as criminal offence, public security administration, public security, public opinion, strategic intelligence, etc. Thirdly, the police should analyze and judge specific police intelligence information. Making use of 110 alarm calls, criminal case registration and other sources of intelligence, the police should have joint investigation in series cases depending on the nature of the case, criminals, and means of committing crimes. The police should also utilize basic information management systems, such as population information system, hotel industry, mobile phones and high risk group of suspects, discover the connection between target cases and target suspects, and therefore provide high-value intelligence to the first-field police departments in cracking down on crimes precisely.

(b) Dynamic Command

Dynamic command is the nerve center of dynamic policing control system of crimes. By means of modern high-technology command platform and clear command levels, the police set up flexible working mechanism, deploy police forces and make arrangements accurately, timely and effectively in the shortest time possible. Dynamic command can shorten the time of intelligence transmission or submission, and effectively prevent and solve criminal offences.

• Optimization of Command System

Advanced technology should be applied into police routine work, such as CDMA cluster communication and GPS technique. Public security cluster network should serve police work. A comprehensive command system should be established with the function of intercom, positioning and data submission. The comprehensive command system can monitor command, trace events, make strategies. And at the same time, it can visually position the patrol police officers and transmit data through GIS. Secondly, image center system in municipal police agency should be established relying on public security optical network and monitoring image resources by all local police agencies. Important crime-scene images, mobile images and satellite TV intelligence images can all be transmitted by all kinds of transmission technology, wired or wireless. And the realization of intercom makes command and dispatch possible. Thirdly, video surveillance system should be installed in key places and main streets. So real-time surveillance images can be shown to guarantee evidence obtaining and arrest command for crimes in action.

• Enhancement of Command Coordination Effectiveness

Command system should be perfected and command methods should combine top-down hierarchical order command and guidance command. Command decision should be unified, command links should be decreased, job responsibility should be clarified and command effectiveness should be enhanced. Emergency call reception and handling system should be perfected and cross-department and cross-regional emergency call reception and handling system should be perfected in order to shorten the time of police intelligent retention and the time of command operations. The power limit of municipal and local police command and dispatch should be clarified in order that command roles come to effective play.

• Improvement of Classification Command Ability

Firstly, handling of large-scale group emergencies should be timely and careful. Municipal command centers should judge the degree of large-scale group emergencies the first time they happen and give corresponding operation orders to local police command center. Operation police forces should assemble in required time and place and assembled police forces are coordinated by municipal command centers. Secondly, when large-scale specific action is started in areas where crimes occur frequently, municipal command centers should increase police forces in the area. What's more, municipal command center should understand crime clues fully, make action plans, dispatch more police forces in a short time, control the target area with temporarily overwhelming police forces and soon secure a safe environment in the area. Thirdly, when handling serious criminal cases, command centers should respond quickly and start emergency planning. At the same time, command centers should coordinate intelligence department to start investigation, precisely assess the scale and degree of danger. After decision-making organs make a decision, the command centers should assemble different police forces in the shortest time possible, and coordinate different police departments of criminal investigation, patrol department, traffic department, and fire department, etc.

(c) Dynamic Deployment of Police Forces

Dynamic deployment of police forces is the entity to accomplish dynamic policing control system of crimes. Patrol police departments reasonably deploy police forces in time and space according to early warning release and prevention and control principles formulated by command system in order to keep pace with social dynamic criminal development and have effective result of patrolling task. The aim of dynamic deployment of police forces is to place limited police forces into key areas.

• Improvement of Overall Alarm Call Receiving and Handling Rate with Grid Deployment of Police Forces

Grid-enabled patrol consists of patrol areas and patrol police forces. Deployment of police forces should change from simple to precise deployment and from static to dynamic deployment with more initiative and pertinence. The command center should depend on 110 real-time surveillance data and police intelligence analysis and judgment, predict statistics, make overall planning, and establish grid-enabled patrol areas in the whole city. Patrol management department should arrange the police forces into groups, and deploy them into patrol areas with patrol police forces from police stations so that the stationary and mobile police forces in patrol areas can complement each other. Each patrol area should have a serial number and be under the leadership of a 110 command center. Thus policing work mode of overall network is finally established, with patrol police forces taking the lead, and traffic police forces, police station forces and other kinds of police forces coordinating.

• Improvement of Police Force Deployment Precision according to Specific Situations

Firstly, limited police forces should be deployed when they are most needed. Time of crime occurrence varies during different periods of time and changes with alternation of four seasons. The police chiefs in the patrol area should arrange flexible work shifts, deploy police forces according to police intelligence information and specific requirements in order to prevent and crack down on crimes with pertinence. Secondly, limited police forces should be deployed where they are most needed. Patrol areas and police forces should be adjusted dynamically and limited police forces should be deployed in reasonable proportion at the areas with high-frequency crime occurrences. Thirdly, the scale of police force deployment should be increased in some areas where serious crimes take place frequently. In such areas, extra mobile police forces should be deployed besides regular stationary police forces, so as to form overwhelming control of the area, then specific actions are taken to get rid of crimes and finally a secure environment of the area is obtained.

• Improvement of Police Coverage of Streets

In terms of patrol arrangement, patrol police force and other kinds of police forces should be combined, foot patrols and automobile patrols should be combined, professional patrols and assist-

ing patrols should be combined and armed patrols and plain-clothes patrols should be combined in order to enhance patrol quality and efficiency.

(d) Dynamic Joint Action of Operation, Coordination and Collaboration

Dynamic joint action of operation, coordination and cooperation refers to the working mechanism which requires 110 command centers to take the lead, and different police forces to coordinate and collaborate respectively when the police deal with large-scale emergencies, carry out important safeguard tasks, and crack down on crimes in action in target areas. The objective of dynamic joint action of operation, coordination and cooperation is to deploy specific police forces according to the nature of emergency and tasks and guarantee the successful handling of emergencies with reasonable police forces.

• Joint Operation

The aim of joint operation is to increase efficiency of large-scale police operation when emergencies and serious crimes happen. Best police force collocations should be formed at the best time and comprehensive combating force with different operation tasks should be produced so that emergencies can be solved properly and the best effect can be obtained. Firstly, emergencies should be handled with accuracy. According to the nature, scale, and degree of the emergency, a corresponding emergency planning should be applied. In case of large-scale group incidents, political hostage-taking incidents, or terrorist hostage-taking incidents, 110 command center and onsite command center should work at the same time and report to the upper-level police agency. Then, the two command centers handle the emergencies according to the decision and direction. Secondly, on the basis of different job arrangements of emergency planning, different police departments should have regular emergency-handling teams, strengthen training and management, have regular rehearsal, and integrate professional expertise so that the regular emergency-handling team can perform urgent operations with high efficiency at any time and under any circumstances. Thirdly, all kinds of police forces and all departments should collaborate closely, have different responsibilities in emergencies and form comprehensive combating force so that the emergencies can be quelled at the best time with most effective method and most efficiency.

• Joint Guarantee System of Resources

Firstly, joint guarantee system of resources is to provide police equipment, communication equipment, transportation vehicle and provision to different police forces in large-scale joint operations. After serious crimes happen, the command centers should direct different police forces to evacuate and rescue the crowd. Secondly, joint guarantee system of resources should provide comprehensive information inquiry support. Besides regular police equipment, patrol police officers should be equipped with mobile phones, PDAs or laptops so that they can inquire and review information from fugitive information database, suspect fingerprint database, stolen vehicle database and drug user database. Thirdly, joint guarantee system of resources should supply basic information of local areas, including streets, house numbers, key places so that it can ensure the police quickly search the crime scene and correctly understand the suspect cars and criminals under check and control.

SUMMARY

Dynamic policing control system of crimes is a complicated systematic project, involving all aspects of police work and having high demands for optimization of different police forces. Constructing dynamic policing control system of crimes is an effort-taking and time-consuming job, but realization and smooth operation of dynamic policing control system of crimes adapts to world policing development tendency. Besides, dynamic policing control system of crimes is a necessary requirement of social development and criminal investigation work in China. More importantly, dynamic policing control system of crimes can definitely improve the overall competence of the police to prevent, control and crack down on crimes and contribute to build China into a harmonious society.

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TOPIC III

CONTEMPORARY CONCEPTS IN CRIMINALISTICS

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EFFECTS OF AN EXPLOSION TO THE ENVIRONMENT AND QUALIFICATION OF CRIMINAL OFFENCES COMMITTED WITH THE EXPLOSIVES[1]

Full Professor **Milan Žarković**, PhD
Lecturer **Ivana Bjelovuk**, MSc
Assistant Professor **Tanja Kesić**, PhD
Academy for Criminalistic and Police Studies, Belgrade

Abstract: Considering the great destruction power to the brisant explosives they are often used as the charge for the explosive devices that can be used, and often are used, in the execution of various criminal offences. This paper discusses the effects of explosions to the environment and possible legal qualification of criminal offences in which the brisant explosive was used as a mean of execution. This is illustrated through the analyses of cases registered on the territory of the Police Directorate for the City of Belgrade in the period from 2001 till 2006. It also shows the trend of movement of the number of explosions with the effect to the environment. The objective of this paper is an insight to the existing conditions in relation to the legal qualification of a criminal offence/event, as well as the review of the existing varieties of criminal offences qualification in dependence of the mass of the used explosive.

Keywords: brisant explosive, explosive device, explosion effects, criminal offence, qualification.

INTRODUCTION – EXPLOSIONS AND EXPLOSIVES

Extensive knowledge of initiation, processes and effects of explosions is an assumption of adequate treatment of numerous and various subjects within the measures of the first intervention on the site of their occurrence, as well as of those that, because of them, and because of the circumstances surrounding them, act subsequently. For a variety of reasons this is also true for those subjects for which it can be said that they are the key actors of the crime and criminal proceedings in relation to various criminal events, including explosions. Among other things, this is due to a number of facts and circumstances that are related to the actual explosion, which may be of the importance for the creation and decision-making in criminal matters that derived from them.

The Law on Emergency Situations of the Republic of Serbia (Official Gazette of RS, No. 111/2009) recognizes the explosion as one of technical-technological disasters, i.e. as an accident, and that is defined as a sudden and uncontrollable event or series of events that were out of control while managing certain working resources and in dealing with hazardous materials in production, use, transport, traffic, processing, storage and disposal, and the consequences of which are jeopardizing the security and people's lives, property and the environment. Besides the explosions, this term covers the following: fires, disasters, traffic accidents in road, river, rail and air traffic, accidents in mines and tunnels, work stoppages of the cable cars for the transport of people, damages of dams, damages to the power, oil and gas plants, accidents in the handling of radioactive and nuclear materials (Article 8, paragraph, 1, point 4).

The Law on Fire Protection of the Republic of Serbia (Official Gazette of RS, no. 111/2009) defines an explosion as a process of rapid combustion resulting from the use of flammable liquids and gases and other flammable substances that together with the air can form an explosive mixture followed by a shock wave pressure of burning products and the temperature rises, as well as the pro-

1 This paper is the result of the realisation of the scientific research project entitled "Development of Institutional Capacities, Standards and Procedures for Fighting Organized Crime and Terrorism in Climate of International Integrations". The Project is financed by the Ministry of Education and Science of the Republic of Serbia (No 179045), and carried out by the Academy of Criminalistics and Police Studies in Belgrade (2011–2014).

cess of the rapid destruction of the covering of container due to unplanned or uncontrolled spread of fluids and flake of machine parts, technology equipment or objects, which threaten the lives and health of people and material goods (Article 4, paragraph 1, point 2).

The largest number of authors agree on the definition in which the "Explosion is a fast chemical reaction of disintegration of explosive's substances, followed by sudden rise of pressure, abrupt release of large quantity of energy in a short time interval and a shock wave as the consequence that occurs in the surrounding area."[2] Since the explosion can be seen as an explosion of containers under pressure, explosions of steams from flammable liquids and gases, chemical explosions and nuclear explosions, there is need to emphasize that this paper only applies to those that are related to explosive materials that are labelled as brisant explosives.

The Law on Explosive Materials, Flammable Liquids and Gases of the Republic of Serbia (Official Gazette SRS, Nos. 44/77, 45/85 and 18/89 and Official Gazette RS, Nos. 53/93, 67/93, 48/94 and 101/2005 – other law) under the term of production of explosive substances indicates commercial explosives, means for the ignition of explosives, pyrotechnic products, commercial ammunition, gunpowder and raw materials for their production (Article 3, paragraph 1). Although the term explosive substances is also used as a general term for explosives, gunpowder, rocket fuel (propulsive) and pyrotechnic mixtures, explosive substances are usually defined as chemical compound or chemical homogeneous or heterogeneous mixtures, which with a very fast chemical reaction in a very short period of time can free their potential energy[3], i.e. as gaseous, liquid or solid substances that under the influence of a suitable pulse exceed into the stable compounds, mainly into gas and steam with the release of large amounts of heat, which, through the expansion of gases, turns into the mechanical work.[4]

Different in chemical composition and physical-chemical properties, explosive substances offer the possibility of numerous classifications. As an acceptable one that stands out is given by French engineer and ballistics expert Sitterlen. According to the method of action, he divides explosive substance into: a) explosives and b) powders and pyrotechnic mixtures.[5] Explosives are defined as substances capable to decompose in accordance with the regime of stable detonation (chain reaction), releasing in a very short time a large amount of energy.[6] As a special category of explosives that stand out are primary (initial) and secondary (brisant) explosives. Initial explosives are sensitive to the external influences, shock, abrasion, puncture, shooting, etc. and their detonations serve to encourage the reaction of secondary i.e. brisant explosives. As the most common in application we can distinguish fulminate and azyde initial explosives. The largest numbers of brisant explosives are stable at room temperature and resistant to external influences. The best known and most widely used brisant explosives in our region are trotyl (TNT, trinitrotolulol), tetryl, hexogen, nitro-glycerine, and nitrocellulose. Brisant explosives can be classified into commercial and military explosives.

BRISANT EXPLOSIVES AND THEIR EFFECTS

Given that they are, as a powerful source of energy, capable to, in a very short period of time, perform a huge mechanical work in a minimum volume, brisant explosives are in very wide use (mining, oil and metal industries, agriculture, construction, traffic and etc.) and are also used for making explosives devices. Generally, explosion of an explosive substance is characterized by high and variable velocity of explosive decomposition, which almost does not depend on external conditions.[7] This velocity is supersonic and ranges from a few hundred to a few thousand meters per second.[8] In this regard, at the moment of an explosion, in the reacting layer of explosive substances, gaseous reaction products quickly reach the values of high pressure and tem-

2 Žarković, M., Bajagić, M., Bjelovuk, I.: *Specifics within the crime scene investigation of an explosion site in the case of suicide terrorism act,* Proceedings of the conference "Policing in Central and Eastern Europe – Social Control of Unconventional Deviance", Ljubljana, Slovenia, 22-24 September 2010, p. 497-521

3 Radić, V.: *Hazardous substances,* Belgrade, 2011, pp.55- 56.

4 Franjić, B.: Milosavljević, M.: *Forensic ballistics,* Sarajevo, 2009, p. 187

5 Radić, V.: *op. cit.,* pp. 68- 69.

6 *Ibid.,* p. 72

7 *Ibid.,* p. 61

8 Stamatović, A.: *Explosions physics*, Belgrade, 1996, p.25.

perature (sudden pressure jump affects layer by layer of explosive substances and it continues until it is completely dissolved). Soon after their spreading into the environment starts, the surrounding air begins to move and causes the compression of the air layer that is in contact with the gaseous products of the explosion. In this way, most of the explosion energy is transformed into a shock wave with demolition effects. As the time passes those gaseous products are spreading, shock wave front moves with the velocity higher than the expansion of gaseous products of an explosion, because of which those gaseous products are delayed after the shock wave.[9]

In contrast to the explosion that, generally speaking, as a non-stationary process does not take place at a constant velocity, detonations are, as a specific kind of explosion that is connected only to the explosives (stationary form of explosions), characterized by a constant velocity of conduct (that one which is the maximum for a particular explosive substance), and is characterized by sudden change of pressure in the centre of the explosion (from two hundred to three hundred thousand bar).[10] Basic forms of external detonation, i.e. the effects of an explosive charge are manifested through its *brisant and demolition effect*. Dynamic loads due to explosions cause large deformations on surfaces that are in contact with explosive charge, with strain rates from 10^{-1} to 10^{-3} s^{-1}.

Brisant effect includes tearing, puncturing and crushing environment which is in direct contact with explosive substances and it is a result of the shock of gaseous products' detonations at distances of not more than 2 to 2.5 explosive charge calibres. In other words, destructive impact of the explosive charge has the ability to destruct the environment in which the explosive charge was placed (the so called local destruction of the surrounding environment), as well as the destruction of the object that is in contact with the charge (in case of contact detonation). In any case, the destruction is connected exclusively to distances in relation to activated explosive charge. Given that the main parameters of the detonation wave are the velocity and pressure of detonation products, they are the ones that significantly affect the destruction ability of an explosive charge. It can be said that this effect is a result of a strong shock of detonation's gaseous products and that it occurs immediately after the end of a chemical reaction, and that it is the strongest in the case of contact detonation. As the distance from the explosive charge is increasing, and due to the declining value of the pressure, density, velocity and other parameters of the shock, the mechanical effects of the detonation to the environment are decreasing.

Demolition (blast wave) explosion effect is manifested with the breaking and rejection of the environment in which a detonation occurs and it is based on the effects of the shock wave movement and the expansion of detonation's gaseous products at a certain distance from the centre of detonation (as long as the pressure of detonation products and the environment does not equate). In ideal conditions the shock wave spreads radially from the explosion, and its energy is spread uniformly along a spherical surface with a radius that is growing rapidly (with the velocity of impact movement). Due to the growing radius the concentration of energy decreases rapidly, and the shock wave loses its effectiveness.[11]

In simple terms, the main difference between a destruction and demolition explosion effects of brisant explosives is that the destruction zone includes the volume in the vicinity of the explosive charge, while the demolition zone covers much larger volume around the explosive charge[12], and the main difference between the shock wave that causes the destruction and the one causing the demolition is the amplitude (wave that causes destruction has a smaller amplitude).

9 When interpreting the traces and other effects of an explosion one must have in mind that the air layers at considerably different temperature can cause the bending or rejection of the shock wave front (this is the consequence of the quadratic dependence of the velocity of the sound spreading through the air from the air temperature $c^2=\kappa p/\rho$). It is also good to know that the strong wind flow can, by the return wave, cause the focusing in the downwind direction.

10 Franjić B., Milosavljević M.: *op.cit.,* p. 187

11 With deformations in the conditions of non-homogeneity, the shock wave in realistic conditions shall encounter lots of different obstacles and it modifies its spreading direction, as well as its shape and strength of the front. For example the front of a shock wave in a room can travel through the door opening and it can damage the items and materials that are situated directly in the line of the door in the next room. Front of the shock wave can reject from a solid obstacle and it can be redirected, which results with a significant increasing of possible decreasing of pressure in dependence of the characteristics of the obstacle.

12 Behind the demolition zone there is a shaking zone i.e. area with radial cracks of the environment. The size of each zone depends on the characteristics of an explosive charge and the environment in which the detonation occurred.

Viewed through the prism of establishing facts relevant to the proceedings in a concrete criminal matter it must be known that the overall performance of an explosive charge includes the sum effects of the destruction and demolition, and that the theoretical performance is significantly higher than the actual performance of detonation. This is due to the heat loss of detonation's gaseous products that spread through the surrounding environment until their pressure is equalized with the pressure of the surrounding environment.

As said already, destruction and demolition effects of brisant explosives are connected with the overpressure that occurs because of it. The importance for the creation of the initial versions about the type and mass of used explosives is also in the calculations and measurements on which the correlation between overpressure of brisant explosives detonation and its consequences to the environment are determined. In such way the overpressure of $2kN/m^2$ is connected with the breakage of glass, the overpressure of $4kN/m^2$ is connected with the outbreak of the window's sash, the overpressure of $10kN/m^2$ with the complete crash of all sorts of glass, damages on the frames of doors and windows, the overpressure of $12kN/m^2$ with the demolition of roofs and walls of light wooden buildings, the overpressure of $20kN/m^2$ is connected with hurting people, the overpressure of $30kN/m^2$ with the damages on multi-storey brick buildings, the overpressure of $45kN/m^2$ with the demolition of over ground power lines and damage of open traffic means, the overpressure of $48kN/m^2$ complete demolition of multistorey masonry buildings, the overpressure of $70kN/m^2$ severe damages of seismic reinforced concrete buildings, and the overpressure of $200kN/m^2$ is connected with the death of people.

From noted correlations and especially with the use of adequate equations, it is possible to calculate the mass of used explosive.[13] This is valid if there was an adequate registry of emerged damages and measurement of their distances from the centre of an explosion. The dependence of the effect of an air shock wave, created with the detonation of some brisant explosive, is often shown in certain correlations. For example, it is stressed out that for the explosive mass of 0,5*kg* the danger zone for an unprotected person is at the 3,5÷7m, and that the distance of 35÷100m is safe. As its consequence this explosive mass will have partial damage of glass at the distance of 7÷20m, while the demolition of solid walls and damages of the bridges will occur only at the distance of 1m. For the mass of 1,0*kg of explosive* the danger zone for an unprotected person is at the distance of 5÷10m, while it is safe at the distance of 50÷150m. As its consequence this explosive mass will have partial damages of glass at the distance of 10÷30m, while the demolition of solid walls and damages of the bridges will occur at the distances up to 1,4m. For the mass of 2,0*kg of explosive* the danger zone for an unprotected person is at the distance of 7÷14m and safe distance is at 70÷200m. As its consequence this explosive mass will have partial damages of glass at the distance of 15÷40m, while the demolition of solid walls and damages of the bridges will occur at the distances up to 2m. For the mass of 5*kg of explosive* danger zone for an unprotected person is at the distance of 11÷22m, and the safe distance is at 110÷330m. As its consequence this explosive mass will have partial damages of glass at the distance of 20÷70m, while the demolition of solid walls and damages of the bridges will occur at the distances up to 3m.[14] In Russian literature one can find concrete mathematical equations for the estimation of safe distance in dependence of type and mass of used explosive.

It is important to mention that the experience has shown that the effects of a detonation of the ground surface in relation to the effect of a detonation in the air for the same explosive charge with the same mass are more than two times bigger. This phenomenon is explained by the easier spreading of wave through the air and certain interaction with the rejection of waves from the ground surface. By leaning the explosive to the object one wants to destroy, the perpetrator doubles the damages effects in relation with the effects of free placement of the same charge. For example, we find these effects in cases where an explosive charge was placed under a vehicle, next to the wall, etc. In cases of such explosions the crater is an accompanying element and it is recognized as the centre of an explosion i.e. as a zone with the most damages located in the initiation spot. In other words,

13 More about this in Žarković, M., Bajagić, M., Bjelovuk, I.: *op. cit.,* p. 497-521, Bjelovuk, I., Jaramaz, S., Mickovic, D.: *Estimation of explosive charge mass used for explosions on concrete surface for the forensic purpose,* Sci. Justice 52(1)2012, 20-24 and Bjelovuk, I., Jaramaz, S., Kričak, L.: *The Significance of Crater for Determining Explosion Cause in Forensic Engineering,* p.913-929, International Scientific Conference "Archibald Reiss Days", Belgrade, Serbia, 1-2 March.

14 Stamatović, A.: *op. cit.,* p.170

the presence of crater at the site of an explosion shows that the explosion was of concentrated source in contact with the centre of in its immediate vicinity.[15] We must also have in mind the fact that in case when the relation between length and diameter, i.e. width and height of the charge is less than or equal 6 (compact charge) crater formation mechanism is similar to the one created by the explosion of a spherical charge.

Fact-finding and decision making in concrete criminal matters includes the awareness that, besides brisant and demolition effects, detonations of an explosive charge of ordnance devices i.e. ammunition (conventional and missiles) and mines – explosive devices (formational and improvised)[16] can have fragmentation, i.e. fragmentation-demolition effects on the surface and to the environment. Given the fact that the fragments can cause big damages and injuries on objects and persons who are much further away from the explosion centre, ***fragmentation effect*** of an explosion to the environment expands the zone of its effects, and in such way it has a significant importance in legal qualification of a criminal offence committed by causing an explosion with brisant explosive charge in the explosive device and in determination of the criminal responsibility of a perpetrator. This is especially valid in the segment of an estimation and determination of the existence of intent/negligence in relation to the wanted/emerged consequence.

Fragmentation effect of ordnance devices is conditioned with the demolition and fragmentation i.e. with dismemberment of the casing of an ordnance device during the explosion, and after that with the radial flake of casing's fragments on all sides in relation to the explosion centre. High initial velocity of the casing's fragments enable them to cause different sorts of damages. This, above all, is depending from the material and shape of an ordnance device, used explosive charge and the way of its initiation, as well as from the characteristics of fragmentation of ordnance device casing (number, individual mass and shape of fragments), direction, direction of the beam and effective range of fragments, distance between the explosion site and the object/person who was exposed to the fragments effect, position of the fragments, position of the ordnance device in relation to the object/person, its size, etc.

Of utmost importance for the determination of the existence of basic, i.e. qualified form of the concrete criminal offence and the responsibility of the perpetrator who, as the mean of its execution, used an explosive device with fragmentation effect is the determination of the way in which this effect was made (natural fragmentation, controlled fragmentation or pre-fragmentation). Explosion with natural fragmentation creates fragments with different masses, irregular shapes and sharp edges, from which 40% is lethal, while the rest, because of the mass, shape and size do not have such effect. Explosion with controlled fragmentation creates fragments with optimal shape, engraved external or internal surfaces of the ordnance device casing , while the pre-fragmentation is related to previously made fragments in the shaped of metal pellets, cubes, sticks, etc. that were, in dependence of the construction, placed into the ordnance device casing or in explosive charge.

In all, especially with improvised ordnance devices, fragmentation effects on objects/persons can be conditioned not only with the way in which the ordnance was made but also with the place on which it was placed. Thus, the fragmentation effects of an explosive device that was, for example, placed next to a vehicle increases by shattering of vehicle parts that, after the explosion, scatter into surrounding area. With improvised explosive devices, the person who manufactures them can, by placing pieces of metal into the explosive charge, enhance the effect of the shock wave, or enable fragmentation – demolition effect of the explosion. Determination of these and other relevant facts include quality of forensic crime-scene investigation, i.e. adequate finding, securing and exclusion of relevant items and traces, their analysis by competent professionals in reference laboratories, and then the proper presentation of the results of these activities in the proceedings in court. As a rule, traces of the fragmentation effects of an explosion on the human body are manifested as mechanical injuries such as gashes, lacerations or small holes defects.

Among the frequent injuries that are connected with the explosion of brisant explosives are blast injuries. These injuries are manifested as tissues and organs injuries due to the direct or indi-

15 Calculation of overpressure in the shock wave in case of detonation on the ground surface is possible with the use of equations given by Sadowsky, i.e. Cook. More about this in Stamatović, A.: *Explosion physics*, *op.cit.,* p 165.

16 In case of ammunition the projectiles actively go to the target, and mines – explosive devices passively wait for the target.

rect effect of the explosion's shock wave and they are especially expressed in case of explosions that occurred in a closed space. [17] Thus, for example, at the lowest levels of overpressure the victim can suffer from a partial and temporary hearing loss for frequencies without the damage of the eardrum (the overpressure of kN/m^2 is connected with a slight possibility of eardrum damage, in case when the overpressure is 100 kN/m^2 this possibility is on the level of 50%.)[18] Larger values of overpressure cause partial or total hearing loss as a result of damaged eardrum.[19] Lung damage occur when the shock wave hits a person's chest with a pressure that leads to the movement of the chest wall and spatter of tissue (the air enters the bloodstream and damages vital organs), i.e. due to the propulsion of tissue inside the body, fluid spills into the lungs. Thus, for example, the overpressure of 200 ÷ 300 kN/m^2 is connected with a small possibility of lung damage, while at the overpressure of 500 kN/m^2 this possibility is big, in case where the overpressure is 700÷800 kN/m^2 there is a slight possibility of fatal injuries, in case where the overpressure is 900÷1200 kN/m^2 the possibility of deaths is at the level of 50%, and in the case of the overpressure of 1400÷1700 kN/m^2 death is certain. It is also important to know that the effects of shock waves on human lives and health are conditioned not only with the level and duration of pressure, but also with the person's position in relation to the direction of shock wave spreading and person's physical constitution. It goes without saying that these factors must be taken into account in the qualification of the type and severity of injuries sustained in a particular case.

As the effects of an explosion are unimaginable without a release of the large amounts of heat, we can talk about the ***explosion's heat effects*** to the environment. Products of an explosion heat the surrounding air to high temperatures, so as a consequence secondary fires can appear at the explosion site. They will not only increase the scope, nature and extent of the occurred damage, but in the conditions of the duration and intensity of the heat they will greatly affect the ability to establish the facts in a concrete case. For these reasons, many perpetrators of criminal offences are using explosion and fire to cover up the traces of their offence with the hope that the traces, which could contribute their identification, will be destroyed by the effects of heat and pressure.

The expansion of the explosive pressure and breaking of parts of large damaged structures may result in the more or less expressed, seismic tremors. Since the seismic effects, typically negligible for small explosions, additional damage to structures in the environment may be expected only in cases of detonation of bigger mass of explosives. In these situations, during the determination of the facts on the scene of an event, and also later on in a criminal proceeding, one must not overlook ***seismic effect*** of brisant explosives detonation.

From the standpoint of subject acting on the occasion of concrete criminal offences committed with the use of explosive devices charged with brisant explosives, it is important to note that numerous and various explosions effects can cause numerous and various changes that are manifested at the spot of an event and in the surrounding area. Viewed from the explosion centre traces of the explosion are with its radial effect scattered throughout the site. At these locations traces that are mostly found are in the form of craters and other damages in different shapes and sizes, and there are also parts of the explosive devices (packaging, casing, parts of initiation set, igniters, detonators, timed mechanisms, parts of electric circuits, nonel system, etc.), residues of unexploded explosives, traces of heat effects in the form of melting, fire, burns on animals and people, traces of the seismic effects, etc. Type and other characteristics of explosion's consequences are conditioned by a number of factors, primarily by the type and mass of the used explosive device, location, manner and time of its installation/activation. In the same time, types and other characteristics of the explosion's conse-

17 Chaloner, E.J.: Blast injury in enclosed spaces, BMJ. 2005 July 16; 331(7509): 119–120. Blast injuries are divided into primary (isolated wave effect), secondary (effect of the projectile from an explosive device) and tertiary (caused by the rejection of body and its impact into mechanical obstacle). Tasić, M., and associates: Forensic medicine, Novi Sad, 2007, p. 80.

18 These blast ear injuries are characterized by a short and strong pain in an ear, sensorineural hearing loss in different degrees, tinnitus (ear buzzing), and sometimes vertigo. Ignjatović Lj., Letanin B., Janić P., Nikolić S.: *Hearing damage as a subjects of expertise of consequential damage,* Journal – special edition, Belgrade, 2003; 108-13, in accordance with: Milovanović, A. P., Djukić, V.B., Milovanović, J.P., Krejović-Trivić, S. B., Milovanović, A. N., Keku, D.P., M. Grajić, M.: *Judicial – medical importance of face, mouth, teeth, throat, nose and labyrinth injuries, Acta chirurgica Iugoslavica*, 2009, vol. 56, no. 3, p. 136.

19 Acute acoustic trauma is classified in slight bodily injuries, while in the practice of national courts the rupture of eardrum is qualified as slight (in case of smaller perforation) and as a serious bodily injury (for example in the judgment of Fist Basic Court in Belgrade K. no. 22372/10 from 30th March 2012)

quences, the above mentioned and other relevant factors in a concrete case (for example, personal and professional characteristics of a perpetrator) are important for its proper qualifications, and also for an effective research and proving of criminal liability of the person who caused the explosion, i.e. who contributed to its occurrence.

Taking into consideration the war environment in previous years, and therefore easier access to formational explosive devices, in national forensic practices there is a significant presence of cases in which, for the explosion, perpetrators used hand grenades and other explosive devices. In this regard, it is expected that officers participating in investigation of the scene of an event are well aware of what sorts of material traces can be found on the crime scene (with its specific characteristics in terms of appearance, location and ways of finding), but they should also know the techniques of sampling for laboratory analysis, packaging, transportation and laboratory processing.

EXPLOSION EFFECTS AS RELEVANT FACTS OF CRIMINAL LAW

It has been said that the effects of an explosion to the environment are manifested in the form of numerous and various traces, including the form of deadly consequences and so-called blast and other injuries (when it comes to effects on humans and animals), i.e. damages in the form of destruction, breakage, deformation, melting and movement of items and objects that were located in the surrounding area of the explosion site. Based on the explosion's effects , it possible not only to make a preliminary assessment about the type and mass of used explosive, i.e. type of explosive device and method of its placement and activation, but also to set quality initial version about identification and other features of the person who made that explosive device, i.e. person who placed and activated the device, and then on the intention of the perpetrator in a concrete criminal offense committed by activating the explosive device. Thus, for example, data about the used mass of explosive is useful for the police officer, and later for the court. because it allows the design of an assessment, and then decision making in terms of commitment of the perpetrator to commit a criminal offense of certain "severity", i.e. with smaller or larger consequences, and therefore the imposition of an appropriate sanction. As a rule, the greater mass of explosives indicates the intention of causing serious material damage, serious bodily injuries or death consequences, a larger number of wounded and killed persons, execution of terrorist acts, etc. This is also the case of making, setting up and activating an explosive device in a manner that indicates the possession of specific knowledge by the perpetrator and his/her intention to achieve desired effects in accordance with the choice of these elements (cause disturbance of citizens, their slight, more serious or deadly injuries, i.e. damage, destruction or demolition of some buildings, appliances, etc.).

When reviewing the Criminal Code of the Republic of Serbia[20], it is possible to notice several groups of criminal offences in which the definition of a concrete offence specifically speaks about an explosion or explosive devices, and there are also lots of criminal offences for which their possession/use can be classified under some elements of a criminal offence, i.e. qualifying circumstances of concrete criminal offences. Of particular interest are criminal offenses against life and body which, with the use of explosives, can harm human lives and health (for example, murder, aggravated murder, negligent manslaughter, serious and slight bodily injuries), but also some property crimes that can, besides other, be executed with the use of explosives (for example, aggravated theft, destruction and damage to the property of another, extortion). It is also worth to mention the crimes against the environment (for example, illegal fishing) and offences against general safety of public and property (for example, causing of general danger, unlawful handling of explosive and flammable materials). With the use of explosives one can execute a criminal offence of endangering the safety of air traffic with the violence, which belongs to the group of criminal offences against the security of public transport.

A special group of criminal offences are those in which execution generally dangerous actions are undertaken, among which those that stand out are causing an explosion with the intent to

20 Službeni glasnik RS, br. 85/05, 88/05 – ispravka, 107/05 – ispravka, 72/09, 111/09 i 121/2012.

achieve certain political goals with the use of violence, intimidation, etc. Here we have in mind the criminal offences against the constitutional order and security of Serbia such as: diversion, preparation of an offence against the constitutional order and security of Serbia and serious criminal offences against the constitutional order and security of Serbia, as well as certain criminal offences against humanity and other goods protected by international law (terrorism, recruitment and training for terrorist acts, the use of lethal devices). The next group of criminal offences is related to offences against public peace and order among which those that stand out are production and purchase of weapons and means intended for the execution of criminal offences and illegal possession of firearms and explosive substances. Within the offences against the Serbian Army, a number of offences are related to the improper care of the entrusted weapons, ammunition or explosives, unlawful disposal of entrusted weapons, ammunition or explosives and theft of weapons and part of combat assets, which includes explosives.

For the purposes of this paper, a review was made of the number of activated explosive devices on the territory of the Republic of Serbia, i.e. improvised explosive devices with brisant explosives as charges, grenades and other explosive devices for the period from 2000 to 2006. With the distinction of those explosions caused by negligence, on diagrams we made the presentation of information about the consequences that were caused by the registered explosions, and it is possible to see the trend in the number of these events and their consequences in a given time frame.

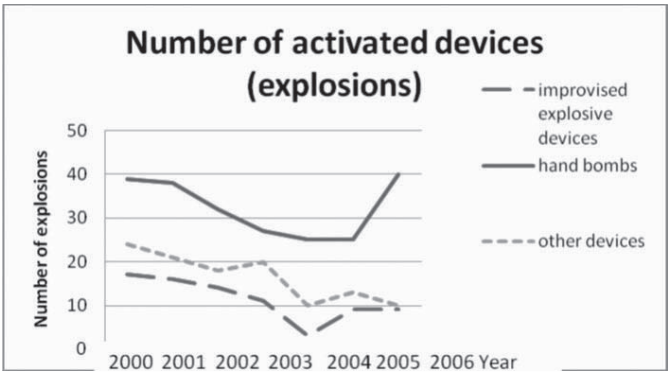

Figure 1 Number of activated devices (explosions) in Serbia from 2000 till 2006

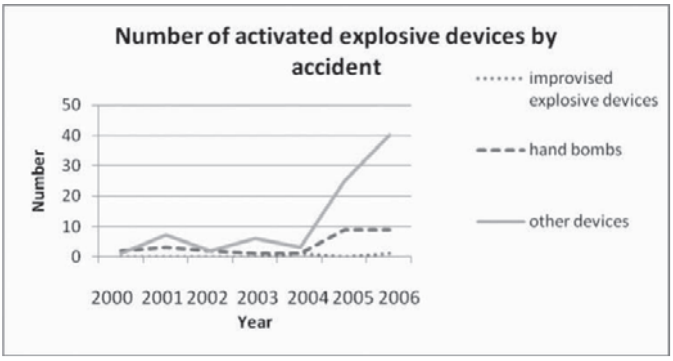

Figure 2 Number of activated explosive devices by accident in Serbia from 2000 till 2006

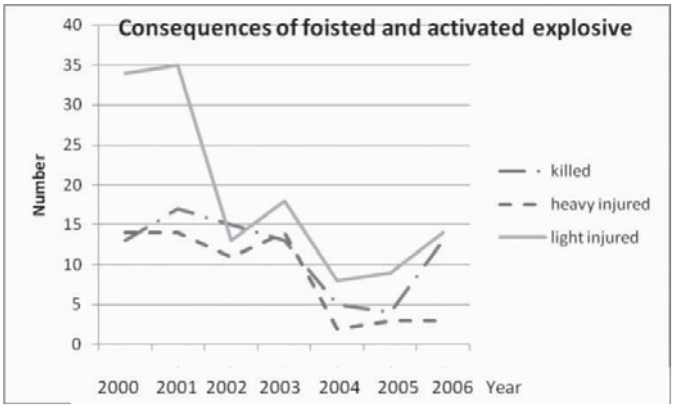

Figure 3 Number of consequences from foisted and activated explosive devices in Serbia from 2000 till 2006

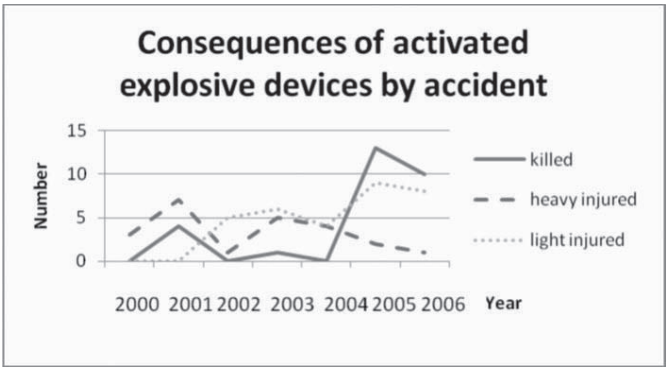

Figure 4 Number of consequences from activated explosive devices by accident in Serbia from 2000 till 2006

From these diagrams, it can be concluded that the explosions are not uncommon in Serbia within the observed seven years. It is also registered that the number of planted devices decreases in the period 2000-2003 and it increases from 2004 until the end of the observed period. It is also evident that on territory of the Republic of Serbia M75 grenade was the most often explosive used, as well as the fact that the most of the planted and activated hand grenades was in 2006. In correlation with this are the data about the type and severity of the consequences that these explosions had on people. We determined that in 2004, 2005 and 2006 there was the largest number of dead persons, and far greater prevalence of this effect in relation to injuries in the cases of negligently activated explosive devices. When viewed through the same prism, it was found that most of the consequences were from the deliberately activated explosive devices during those three years and they manifested through the infliction of slight bodily injuries (number of killed persons was slightly lower, and the lowest was the number of persons who have suffered serious bodily injuries).

With the analysis of situation in the Regional Police Directorate for the City of Belgrade in 2006 in which there were 17 incidents with explosive devices, it was determined that in 14 cases hand bombs were activated and in 3 cases other explosive devices were used, and in one of those the device was activated with the bomb detonation. 9 cases were characterised as events that suggest the existence of criminal offence but there were not enough elements for such qualification, so in such regime they were registered in the book as events. In one case registered event was, after an overview

of consequences and determined facts, qualified as a criminal offence of an attempted murder (Article 113 of the Criminal Code of Serbia, applicable in that period)[21]. 6 cases were characterized as causing of public danger (Article 278 of the Criminal Code of Serbia, applicable in that period), while 1 case was qualified as causing of public danger (Article 278 of the Criminal Code of Serbia), with the elements of illegal possession of weapons and explosive devices (Article 348 of the Criminal Code of Serbia, applicable in that period). During the performance of crime scene investigations that were made for incidents connected with the explosions, different damages on the surface and on the surrounding objects were found as the consequences of these explosions and in one case the existence of serious bodily injuries on 3 persons (one of those persons died from the sustained injuries). In order to determine a cause of an explosion and to identify the perpetrators, in 16 cases requests for expertise were sent (traces of papillary lines – 10 requests, DNA analysis from the pieces of devices – 3 requests, samples from crater for the determination of the explosive's type – 2 requests, burnt plastic mass for the determination of the explosive's type – 1 request).

CONCLUSION

All presented leads to the conclusion that the mass of used explosives, by itself, does not provide enough elements for a claim of causative relationship between the mass of used explosive and the appropriate legal qualification of the criminal offence. This is particularly in the use of formational explosive devices in general, even in the cases of usage of different types of bombs M75-type that are the most frequent in cases of activated explosive devices on the territory of the Republic of Serbia ubiquitous. Even though the undertaken research indicates the relevance of the type and mass of the used explosives with the consequences in the form of damages to the environment and injuries and fatalities of persons, and thus the legal qualification of the performed, we must have in mind the importance (and often critical) of other numerous circumstances, and above all, place, time, manner of explosive's placement and its activation. Thus, for example, it was determined that the largest number of fatal casualties was recorded in cases of negligently activated explosive devices. On the other hand, in analyzed cases that were registered on the territory of the Regional Police Directorate of the City of Belgrade in 2006, it was determined that the most frequent case was the throwing of hand grenades by perpetrators whose intent was aimed on activating/throwing the grenade in a manner to avoid hurting people, i.e. at a place and time when people were not present (except in one case). The same is valid for other forms of planting and activating explosive devices. Operational data on the living conditions and activities of persons whose facilities were attacked suggests that, first of all, all that was in order to send a warning because of disregard of request for desired behaviour, i.e. extortion or even intimidation of competitors in a criminal action, i.e. the execution of a criminal offence in order to cause public danger in combination with some other criminal offence (especially with extortion).

In other words, analyzed examples from the practice show that the explosions of brisant explosives can be covered with different legal qualifications by police officers, and can also have different qualification in accordance with the provisions from criminal legislation. In clarification of a concrete criminal event/offence besides the type and mass of used explosive and consequences that explosion have caused, police officers and other actors in pre-trial proceedings (public prosecutors and judges) have to take into consideration the other circumstances and numerous different material evidence, witnesses' statements, perpetrators' statements, in order to precisely determine perpetrators motive and to make an appropriate legal qualification of a concrete criminal offence. In that context, only lawfully terminated judicial cases represent an adequate foundation for the estimation of question of how the explosive type and mass influence the legal qualification, for a concrete case, considering that the police and public prosecution do not consider the legal qualification as obligatory and it is the subject of change within the criminal proceedings. Guided by this fact and because of the assumption that among these events are only legally finalized cases, the authors

21 Within the research period the applicable law was the Criminal Code of the Republic of Serbia, Official Gazette of the Republic of Serbia, No. 85/2005, 88/2005 (correction) and 107/2005 (correction).

have opted for 2006 to be the last year in the research. In this regard, this paper represents the first step of the research work in this field, and the logical flow is the research of the judicial practice through the analysis of final judgments in criminal matters formed regarding the explosions of brisant explosives.

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THE USE OF "CRYPTOOL" SOFTWARE IN CRYPTOGRAPHIC DATA PROTECTION

Associate Professor **Dragan Ranđelović**, PhD
Academy of Criminalistic and Police Studies, Belgrade
Danilo Golubović

Abstract: In the past, the term "data protection" was usually connected with the protection of data in standalone and from the network isolated computers. Nowadays we are witnessing a constant growth of electronic communication paths which are able to transfer enormous big amounts of very valuable information like health, commercial, scientific, personal etc. With the appearance and permanent expanding of computer networks, new problems emerged regarding data protection transferred via such communications channels. It is very important to notice that together with the growth of telecom networks and informational technologies, a possibility of misuse the transferred data grows as well. Large computer networks, like Internet, with great possibility of data access, make these data vulnerable to the extent of violating privacy, credibility and theft. As a result, an enormous necessity is present on the world market to ensure and make these electronic data transactions more safe and secure. The vulnerability of users to possible attacks brings a great profit to the invaders on computer networks also big companies of computer equipment.

Besides closed and in other way secured communication paths, information are being transferred via different open and insecure channels in computer networks, so every hostile invader is able to jeopardize the security of users. Therefore, protection communication mechanisms over insecure communication channels become the most important shape of achieving security and safety. With exploitation of computer networks in the time has shown that the most effective protection of information and messages sent is the cryptography.

In this paper, the basic terms of cryptography and algorithms are explained, used to secure confidentiality, integrity and availability of information which are transferred, known as the holy trinity of data security , as well as the use of "Cryptool" software used in these purposes.

Keywords: data protection, cryptography, cryptanalysis, symmetric coding, asymmetric coding, hybrid coding, digital signatures, CRYPTOOL.

INTRODUCTION

For two or more computers to communicate over a network, they have to be configured in such a way to form similar informational packages so that target computer could understand them, they have to be well interpreted, and all that so that they could return the information asked. The protocol is a sequence of actions, taken by two or more sides, designed to solve specific tasks. "The order of actions" means that the protocol is executed in defined series from start to finish[1],[2]. Cryptographic protocol is a protocol in solving specific tasks (for example-electronic payments), using cryptographic methods and technologies[3],[4]. Meaning of cryptography in protocols is to prevent or detect fraud or abuse.[5]

TCP/IP is a system of protocol which is used in Internet communication and every single protocol of the system is joined to a layer of OSI seven-layer communication model, which is the standard of International Organization for Standardization – ISO).[6] However, TCP/IP protocols

1 Ranđelović D., *Poredjenje komercijalnih i nekomercijalnih alata digitalne forenzike i njihova upotreba,* Naucno tehnicka informacija, VojnoTehnicki Institut Beograd, 2011.
2 Randjelović D., "Sigurnost računarskih mreža kao osnove za povezanost policije, bezbednosti i visokotehnološkog kriminala," *Tematski zbornik Policija, bezbednost i visoko tehnološki kriminal*,KPA Beograd, 2010, pp 133-174.
3 http://www.csoonline.com/topic/221496/investigations-forensics
4 National Security Agency, *National Information Systems security Glossary*, NSTISSI No 4009, Fort Meade,USA, 2000.
5 S. Sinkovski, Cryptographic basics on information security, Conference on Information Security BISEC 2010. page 7
6 Certificate Security +, Microsoft Corporation & A. Ruth and K. Hudson, CET Computer equipment and trade, 2004.

are not designed to fulfill the needs for the protection of information. Also, Internet is a network with commutation of packages, where transferred information are easily accessed and messages of unknown origin are possible to send anywhere, as well as theft of classified information. For these problems to be solved, today there are a lot of designers and technical products, hardware and software, for different levels of modern networks protection. These products contain standard cryptographic algorithms but are not recommended to use in TCP/IP computer networks with sensitive and important data. One of the main reasons is a lack of security of the cryptographic quality of these solutions.

In modern computer networks, the best cryptographic solutions are based on the use of:

1) Symmetric cryptographic systems for secrecy protection (using their own symmetric algorithms)
2) Asymmetric cryptographic systems based on the digital signature technology, digital certificates, hardware modules and smart cards.

THE HISTORY OF CRYPTOGRAPHY

The word cryptography is made of two words of Greek origin: KRIPTOS, which means HIDDEN, and GRAPHO, of the verb TO WRITE. It can be concluded that cryptography is a science of "secret, hidden writing", or a science of keeping information in a specific form and readable to only those that are intended to, while for others will be useless and incomprehensible[7,8]. The origin of cryptography was never specified, but it is presumed that it appeared more than 2000 years ago BC, due to the first evidence of coding found. In Egypt, around 1900 BC, a scripture was made which today stands for the first documented example of written cryptography. In 6th century BC, in some parts of the Bible, a simple code was used which inverted the alphabet upside down. This code was known as ATBASH. In state communications, Julius Caesar used a very simple substitution – shifting all letters for three positions forward, later known as the CAESAR coding. In middle ages, cryptography was often used in the service of the Church. Like Nomenclature, the invention of Gabrielo di Levandea, who used a combination of replaceable alphabet and a small code. This code was used for the following 450 years, although more complex codes were found in the meantime. Cryptography played an important role in 20th century, especially in the two World Wars. The most significant and famous invention of the time was certainly the ENIGMA, found in 1923 by Arthur Scherbius. After the World War II, the invention of computers gave a new turn in cryptography. IBM, in 1970, develops a code by the name of LUCIFER, which inspires later the making of the DES (Data Encryption Standard) code, 1976. It was widely accepted for its proven resistance on intrusions. The first practical code with public keys is PSA algorithm, made in 1977 by three novices in cryptography: Rivest, Samir and Adelman. It has been used for coding messages and digital signature and was based on complexity of factorizing big numbers. In 1990, in Switzerland, IDEA was made (International Data Encryption Algorithm) which was supposed to substitute DES. IDEA uses 128 bit key and operations that are easily installed in computers. PGP (Pretty Good Privacy), the program for e-mail and data protection, was made in 1991 and was developed by Fill Zimmerman. Due to the fact it was completely commercial and freeware, Fill went bankrupt and PGP became the world standard.

CRYPTOGRAPHY AND CRYPTANALYSIS

Information security is defined as: protection of information systems against unauthorized access or modification of information, whether in storage, processing or transmission, and against deprivation of services of authorized users, including necessary detection measures, documentation and elimination of such threats[6].

7 http://hr.wikipedia.org/wiki/Kriptografija
8 http://en.wikipedia.org/wiki/Code

The goal of encryption of any text, for example password, is to make sure that the text remains incomprehensible to in-conversant persons after the encryption. The encryption changes the text according to premade algorithm of encrypting, using the given keys.

Cryptanalysis dates back to almost 650 AD. The real cryptanalysis first showed, most likely, in Europe. The most famous event involving cryptanalysis happened in 1500 in England, which led to Queen Mary's arrest and persecution for treason. Interpreted freely, cryptanalysis is a way or method of revealing coded information without containing secret data which are, usually, necessary to gain access to these information. Using non-technical terms, it's a practice of breaking codes, though this expression has a specialized technical meaning.[9]

We will point out here only the basics and some of the types of cryptanalysis, because methods for breaking cryptosystems often mean careful solving constructed mathematical problems, the most famous of which is the factorization of whole numbers.

Cryptographic mechanisms are implemented in cryptosystems. Cryptosystem contains: one or more encryption algorithms, one or more keys, key management system, the message that is being taught, randomization algorithm, preparation of text for work with encryption algorithm, and encrypted text. Crypto-technologies are the basics methods of transformation of information available to the modern cryptography. In modern cryptography is discussed only crypto-techniques which are implemented using computers. Encryption can be done using special crypto-blanchot techniques and devices. Due to the lack of publicity available literature on aforementioned techniques, but also due to the fact that their use specialized rather than mass, they will not be discussed.

Historically, the standard procedure is frequent analysis. This analysis demands counting of every letter and symbol in the text coded and matching them with the frequency of the letters in the open text written in a given language.

The other known method is looking for language samples. Namely, every language has its specific samples.

Here are some more methods and techniques of cryptanalysis:

– Cryptanalysis of symmetric crypto stream strings,
– Linear cryptanalysis,
– Differential cryptanalysis,
– Module H cryptanalysis,
– Meet in the middle.

In the course of time, methods and techniques of cryptanalysis have changed adapting to the more complex cryptography[10],[11].

POTENTIAL COMPUTER NETWORK INVASIONS BASED ON THE INTERNET AND POSSIBLE WAYS OF DEFENSE

Together with the development and implementation of Internet computer networks, different mechanisms of defense specialized for defending from certain types of intrusions have been developed[12]. To start with, one should be aware that although Internet computer networks increase the efficiency of work and decrease expenses, they also represent the critical point of security of the organization from the point of data safety transferred in a system.

In the Table 1. are some data emphasizing types attacks experienced and in the Figure 1. actions taken after and incident[13]. The data are obtained from Computer Security Institute (CSI) which serves the needs of Information Security Professionals through membership, live and web-based

9 Wikipedia-free encyclopedia, (cryptoanalysis)
10 Piper F., Murphy S., *Cryptography: A very short Introduction*; Oxford University press, ISBN: 0192803158, 2002.
11 Van Tilborg H., *Encyclopedia of Cryptography and Security*, University of Tehnology Eindhoven, New York, 2005.
12 Petrović S., *Kompjuterski kriminal - drugo izdanje,* Ministarstvo unutrašnjih poslova Republike Srbije, Beograd, 2001.
13 https://cours.etsmtl.ca/log619/documents/CSIsurvey2010.pdf

educational events, publications, and awareness tools also the CSI Computer Crime and Security Survey Report[14] is the world's most widely quoted research on computer crime.

Table 1. Types attacks experienced, by percent of respondents

Year	2004	2005	2006	2007	2008	2009	2010
The denial of service	39	32	25	25	21	29	17
Laptop theft	49	48	47	50	42	42	34
Virus	78	74	65	52	50	64	67
Financial fraud	8	7	9	12	12	20	9
Insider abuse	59	48	42	59	44	30	25
System breaks	17	14	15	13	13		
Wireless network abuse	15	16	14	17	14	8	7
Hacking of websites	7	5	6	10	6	14	7
Web application abuse	10	5	6	9	11		
Bots				21	22	23	29
DNS attacks.				6	8	7	2
Chat abuses				25	21	8	5
Password hacking				10	9	17	12
From mobile phones					8	6	5
Unauthorized access by insider						15	13
System penetration by outsider						14	11

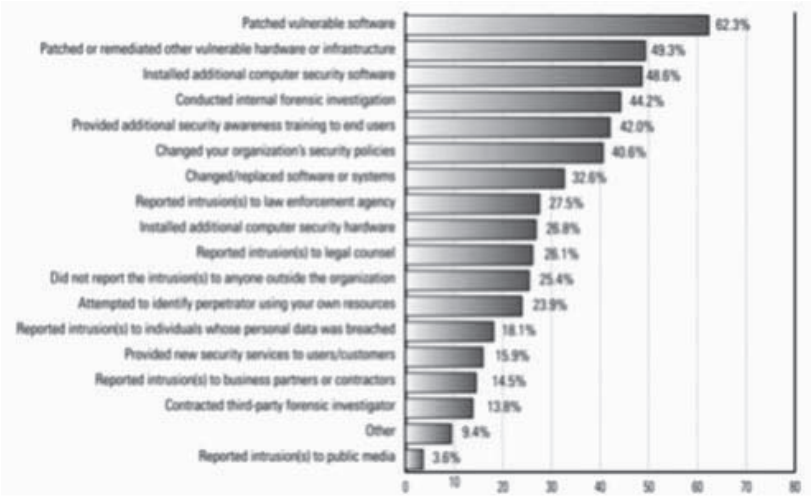

Figure 1. Actions taken after and incident by percent of respondents

14 CSI, *Computer Crime & Security Survey, 2004-2008,*2008.

This analysis of data given in Table 1. and in Figure 1. confirms the following trends in using Internet computer networks:

1) The development of broader specter of possible attacks,
2) Intrusions on Internet computer networks can be external and internal. Although, in the course of recent years, the attacks on Internet computer networks were mainly external, recent analyses show that greater damage and financial lose is caused by a broad specter of internal attacks. The reasons for that are found in the very nature of Internet computer networks in which internal accomplices are not only the employees of the given corporation (that have a certain level of trust) but also business partners, employees in partner firms, cooperatives, deliverers etc. who, because of the simplicity of use and increased efficiency and productivity of work, have very similar, if not the same, access to the network of the corporation as the employees of the same,
3) Recent years, substantial financial losses have been recorded caused by intrusions on the networks,
4) It is clearly noticed that the use of mainly commercial technologies for protecting data does not only represent a reliable solution of defense but also a stratified and comprehensible protection policy must be applied, together with implemented crypto-protection, which will, alongside these commercial technologies, contain the use of good, self-realized protection mechanisms, as well as mechanisms of access control to the Internet computer networks.

The solution to these problems could be the use of digital signatures and certificates. The learning software "Cryptool" helps us, even without any foreknowledge about cryptography, to learn easily the way of digitally signing sending documents so that they can be better protected from potential attackers. Also, Cryptool enables us to learn how to use the complete infrastructure of public keys – PKI (Public Key Infrastructure) which is widely used in cryptography for data protection. Namely, PKI is a collection of hardware, software, people, politics and procedures needed to create, govern, distribute, use, keep and take away digital certificates used in safe authentication of the communication members.

One more, also a very safe, way of authentication are Smart Cards. These cards are, actually, the most common way of using the infrastructure of public keys (PKI). The card stores the coded digital certificate of the card provider together with all the relevant data. A large number of public corporations uses this type of identity confirmation, which, in combination with biometry, presents almost infallible way of authentication. The most advanced smart cards include a specialized cryptographic hardware that uses algorithms like RSA and DSA. The future of using these smart cards is very bright. New ID's, drivers' and traffic licenses are already there, and we can expect a replacement of old health charts with smart cards which will contain all the relevant data about the health status of the chart's owner. It is clear that this type of identity confirmation makes our lives easier and decreases the possibility of abuse and invading the secrecy of important information.

In 2008. and 2009. on the territory of the Republic of Serbia, has been discovered several cases of computer fraud and abuse of credit cards, and material gain was more than five million. Seven individuals were identified as involved in these crimes, and were charged to the Special Prosecutor's Office for the High-Tech Crime District Attorney's Office in Belgrade. Abused are mostly foreign banks, credit card issuers in the territory of the United States, and for obtaining the data, the technique SPAM, phishing and SQL injection.[15]

Some of the tools we can find on the Internet and use in the purposes mentioned above are Cryptool, Netcat, N map, Cryptcat, PGP (Pretty Good Privacy), TOP (The Onion Router). Some of them are open source software which enables users to use them freely and study them. The number and quality of these software are growing, but not at enough rate. It is quite certain that the free and inventive intelligence has to be involved (employed) in this particular direction. These and similar tools are extremely useful for all users of computers and networks, because today it is of utmost importance to protect useful information, whether they are stored in users' computers or somewhere on servers or around network or they are sent to each other by the chat members. There are, certainly, those that are not widespread and cannot be found and freely downloaded on the Internet.

15 V. Urošević, Misuse of credit cards and computer fraud, Law informator, Belgrade, 2009, page 4

The subject of this study is Cryptool, one of the aforementioned free cryptographic tools for education. It is the most widespread software in the world for electronic learning in the area of cryptography.

CRYPTOOL

Cryptool implemented almost all the latest crypto functions and allows learning about cryptography in that surrounding[16]. Methods available include classic and even modern cryptosystems:

– Classic, like Caesar, ADFGVX, permutation algorithms, Enigma algorithms etc.
– Modern methods, like RSA and AES algorithms, hybrid encryption and algorithms based on grid reduction and elliptic curves.

The résumé of all encryption algorithms implemented in Cryptool is available online in the help page (submenu Code/Decode).

Tool's automatic analysis for obtaining key, starting from a coded document and added information (decoded document or the language of the document), is provided for the classic coding algorithms. In order to support your own analyses, Cryptool can show a histogram of the document determining statistics for every diagram and calculating entropies and auto corrections.

Functions for coding inside the menu "Coding/Decoding" are implemented so that they can be used easily and very efficiently. On the other hand, functions in the "Individual procedures" menu are set up so that they can be used step-by-step. Electronic learning about cryptography is the main focus here. The aimed groups of users of the software are students of IT, Business IT and mathematics, but it is also aimed for all computer users, programmers of various applications, employees, pupils and students. To learn and study this software, one has to have a basic knowledge about computers, but it is more preferable for those with interests in mathematics and/or programming.

CAPABILITIES OF "CRYPTOOL"

The goal of this software is to explain cryptographic mechanisms and demonstrate the use and limitations of certain ones, and also to introduce his functions in a way they can be easily understood and learnt.

General characteristics and functions of this software are:

- Cryptool is computer software aimed for electronic learning about cryptography and cryptanalysis,
- All encryption options in one package, controlled by one common graphic user interface,
- Many classical methods of coding and for them options of cryptanalysis given,
- Almost all symmetric methods of coding followed by the possibility of use the "brute force attack" at those specific symmetric algorithms,
- Modern crypto methods (asymmetric) and protocols, digital signature, hybrid coding, common secret and partly possibilities of attacks on these methods of encryption (attack "birthday", from side channel, decrease of the grid base),
- Demonstration of RSA cryptosystem and the attack on the RSA cryptosystem
- Generating and testing of the prime numbers (including the deterministic method AKS)
- Contains a great number of demonstrations, visualizations and animations (for example demo sensitivity of hash algorithm, visualization of the course of process through charts etc.)
- Demonstrations of various ways of net authentications (from UID/PV and short-term passwords to one-way challenge-response, to asymmetric mutual authentication)
- Generators of statistic analyses and many more.

16 http://en.wikipedia.org/wiki/CrypTool

Cryptool can be used without administrative authorization and rights. It contains, also, its own individual program for learning the theory of numbers which is very useful in mathematics and, at the same time, in asymmetric cryptography.

Cryptool contains some educational games that help learners with learning (for example "Number shark").

SYMMETRIC AND ASYMMETRIC ENCRYPTION IN "CRYPTOOL"

Symmetric encryption is the type of cryptography in which the same key is employed for eich of operations in the cryptosystem (e.g. encryption and decryption), and thus the same key , typically a secret, must be shared by the parties performing the various operations.

If we choose symmetric (classic) encryption, the following classic algorithms and codes are opened: Caesar, Autokey Vigenere, Hill, Atbash, Playfair, ADFGVX, Byte Addition Analysis, KSOR, Vernam, Homophone exchange, Transposition, Solitaire Analysis, Rail Fence etc.

If we, somehow, choose to code the message with some of the symmetric – modern algorithms, we can choose one of the following options: IDEA, RC2, RC4, DES (ECB), DES (CBC), Triple DES (ECB), Triple DES (CBC) etc.

The type of cryptography in which different keys are employed for the operations in cryptosystem (e.g. encryption and decryption), and where one of the keys can be made public without compromising the secrecy of the other keys and sides in conversation is named asymmetric cryptography.

Asymmetric coding in Cryptool gives us the possibility of RSA algorithm which we can use for coding and decoding messages transferred.

At the end, with hybrid coding, we can RSA/AES code and decode as well as ECC/AEC code and decode.

One of the very useful and important functions of cryptography, provided by Cryptool, is certainly "Digital signature/PKI".

Digital signature is a collection of electronic data which are added or logically joined to the electronic messages or documents and which serve as a method of identifying the signatory. The purpose of this digital signature is to confirm the authenticity of the context of message (a proof that the message has not been altered on its way from sender to receiver), as well as to provide a guaranty of identity of the sender. In this way, a sender creates a digital signature based on the message he/she wants to send. It is decoded with the secret key and sent together with the message. Receiver, upon receiving, decodes the signature of the sender by public keys. Then, he/she creates the signature based on the message received and compares it with the signature from the message. If the signatures are identical, then it is certain that the message was actually sent by the real sender (the signature was decoded with his secret key) and that it came unchanged (the signatures were identical). In spite of an extreme security this method is equipped with, there is still a possibility of fraud. Someone could send his/her secret key, claiming that it's from the real sender and then send messages which the receiver would've thought to be from the actual sender. The solution of this problem is the use of digital certificates. If someone sends us his/her public key, how can we be certain that the key is really his/her? This is accomplished by the use of digital certificates. We can name them digital ID's as well. Digital certificate is an assurance with which we confirm the connection between data for verifying the electronic signature and signatory identity which is given by an accredited certified body. There are companies on the Internet called CA (Certificate Authority) whose role is to check and confirm someone's identity and afterwards give him/her a digital certificate. After forwarding our public key to CA, they create the digital signature and give the certificate that confirms that the very key really is in our possession. If we still want to communicate with someone, during our first contact we send him/her the digital certificate and our public key. The receiver then easily determines the validity of our certificate.

INDIVIDUAL PROCEDURES IN "CRYPTOOL"

On the toolbar, option "Individual procedures" offers a large number of possibilities mainly of cryptanalysis. With this function we can determine HASH values of various algorithms which can help us with decoding the messages. Also, in individual procedures, we can generate, disassemble and test prime numbers.

There is also the Diffie-Hellman protocol that deals with the problem of two partners in communication who wants to make an agreement about the secret key over insecure line. Still, no one should be able to obtain the key, even if the line is constantly monitored. A very clear visualization is given of how to solve this problem, so that even beginner users become aware of how the mentioned work is done.

Also, Cryptool offers the possibility of identifying the attackers on the networked work stations connected with the server and all that by demonstrating the procedure of net authentication and the "Challenge-response" procedure. This method is very useful because enables the security and checking of the communication link between the server, router and users from potential threats, and also offers us to identify the attackers.

Tools of Cryptool offer also gauges of password quality for better security and easier access to our data and information. Also, there's a possibility of an interactive learning of the theory of numbers.

Entropy, moving frequency, histogram, auto-correlation and periodicity are the tools that Cryptool offers for better analysis of the coded text. Also, for the same purposes we can use the options of symmetric and asymmetric coding, HASH functions and analyzing randomness of text characters.

In Cryptool, options of cryptanalysis are well shown and explained. Options of attacks on classic methods of coders are implemented (Caesar, Vigenere, KSOR, Exchange etc.), then analyses of known texts, brute force attack on symmetric algorithms, attacks on RSA encryption (factorization of RSA module, grid attack), attack on hybrid encryption (attack on RSA or AES encryption). Also, cryptanalysis in Cryptool can be used in attacks on RSA signatures, digital signatures, attacks on HASH functions and analyses of random data.

AN EXAMPLE OF ASYMMETRIC ENCRYPTION OF DOCUMENTS IN CRYPTOOL

The input in Cryptool appears as on the Figure 2.:

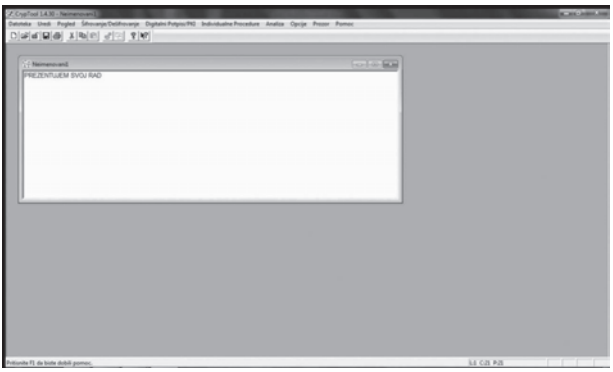

Figure 2. *Window of Cryptool*

Then we start with the next procedure in Cryptool:

1) On the toolbar choose "Digital signature/PKI", and then in the submenu option "PKI", then "generate keys";

2) A window for generating a key pair is open (Figure 3.) with options to choose the length of bit RSA module, length of DSA prime number and elliptic curve. In the upper right corner of the window enter the user data and PIN code which is of vital importance for decoding the document. Upon entering the data, click on "generate new key pair" and parameters are shown which will be used during the coding and decoding by RSA algorithm.

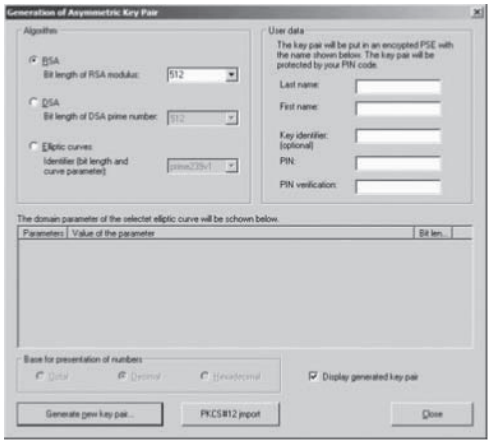

Figure 3. Cryptool window for generating a key pair

3) Then go back to the original text and from the toolbar choose "coding/decoding" and in the submenu "asymmetric coding", then "RSA coding".
4) A window is opened containing recorded keys among which is the afore entered new key (Figure 4.).
5) Choose the right key and press "code";
6) The coded message and expected result are there.

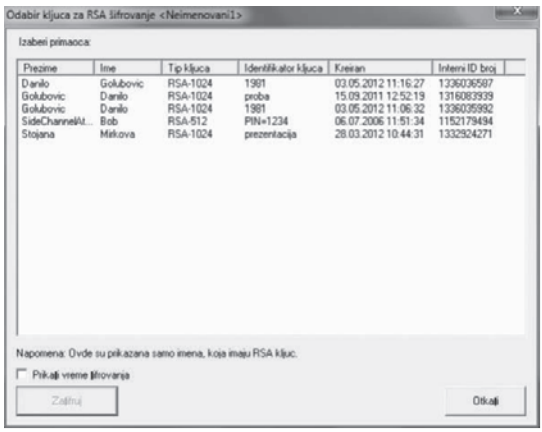

Figure 4. Cryptool window containing recorded keys for generating a key pair

Decoding is done the same way, just by choosing the option "RSA decoding", then the key that was coded and in the upper right corner PIN code is entered which actually represents the private key (Figure 5.).

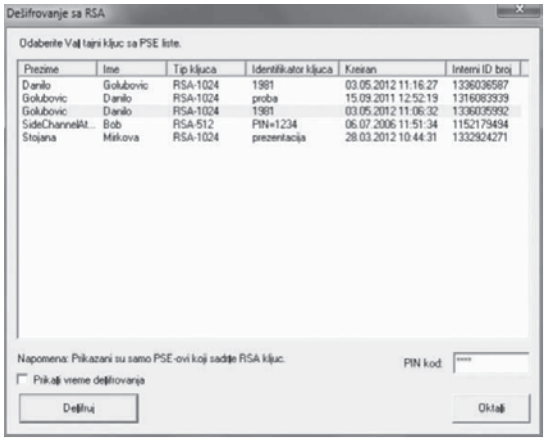

Figure 5. Cryptool window of RSA decoding option

By clicking on "decode" the original message is shown.

CONCLUSION

Cryptool can qualify as an entrance portal for people interested in cryptography. The great advantage of this software is that nothing further should download from the Internet or install, which means that the Cryptool is independent platform that offers the ability to use on-line help on the Internet browser. Also, this option means a lot, as the following resource in the use and training of young people in schools and universities where they studied this science. Website "CrypTool online" has 450 visitors per day. Cryptool provides the opportunity to experiment in learning and mastering the curriculum of practical application and knowledge. This software provides a good opportunity for those interested, to learn and use cryptography without any complications, or to verify their knowledge.

The future of cryptography is very certain – its significance will be stronger by the day. Experience shows that carefully planned and implemented cryptographic patterns have expiration date from 5 to even 20 years. The one using RSA, ECC or AES cryptography can feel secured for short-term protection of data. However, actual patterns of encryption cannot guarantee a long-term protection. The structure of public keys lies in problematic of solving certain mathematical problems, which means that only the length of key and time determine when will certain digital signature be decoded. What is to be done if somehow a computer shows up who would unexpectedly, over night, solve complex mathematical problems and make our actual cryptographic system worthless and invalid? There are at least three things which would prep us for this kind of event:

- "storage" of safe alternative cryptographic patterns,
- Infrastructures which would enable us to easily and swiftly swap one crypto pattern with another, and
- Methods that provide safety for a longer period of time.
- That's why of greatest importance to seek out some new solutions and guide free and inventive intelligence in that direction.

ACKNOWLEDGEMENTS

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CRIME INVESTIGATION ASPECTS OF INTERNET FRAUDS[1]

Associate Professor **Darko Marinković**, PhD
Associate Professor **Goran Bošković**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Frauds are widely spread these days - according to some authors they are third in line if we talk about the category of property criminal, they come after thefts and aggravated theft. On the other side, if we take a look at a complete number of committed frauds, the dominant ones are those in which there is no physical *direct* contact between the perpetrator and the victim, but is replaced with the *indirect* contact, using mail (like the so-called *chain letter*), the Internet (most common so-called *e-mail spam*) or any other media, when a large number of (randomly chosen) potential victims are contacted simultaneously (so-called *mass marketing fraud*). Today, classic profile of the perpetrator/fraudster is greatly changed. Today, a perpetrator has considerate amount of IT knowledge and experience, understands e-business and the Internet, has a power of manipulation using written resources (e-mails) and also is very well acquainted with the profiles of the people who are using the Internet. The United States Federal Trade Commission, which, among other things, deals with the protection of the consumers, has data that show that *identity theft* frauds and scams are the most common ones, but there is an expansion of other forms of frauds and scams on the Internet. In this paper, basic phenomenological features of most common Internet frauds are presented - *identity theft* fraud and the so-called *Nigerian scams*, and online shopping scams. Basic lines of crime investigation of these illegal acts are also presented in this paper.

Keywords: fraud, Internet online scam, identity theft, Nigerian scam, investigation of frauds.

CONCEPT AND TYPES OF FRAUDS

As a free, rational and sensible being, a man makes decisions by using all available information (facts) which he/she receives, analyses and draws certain conclusions. If the facts are true, i.e. if they match the objective reality, and if a man's mental side of personality is adequate to grasp them and based on them he/she makes sensible decision, that decision will, as a rule, be good for him/her and also useful.

A problem in making decision, whose realization will bring him/her material or non-material gain, including the diminishing of unavoidable damage, appears the moment a man does not have true facts, or when he/she is not able to draw sensible conclusions, regardless of the quality of the facts. False facts may be a result of bad perception of reality, or, they have already come in that wrong way from other people, in many different ways. In connection with this is criminal act of fraud - basically, fraud is a result of a man's wrong perception of the reality, i.e. making decisions based on false facts. The condition of the wrong perception, understanding or opinion about an objective fact, process, feature or circumstances is called misconception. Misconception is subjective category and it refers to a certain person, who in the case of fraud, under the influence of it, makes a decision which, when realized, does certain damage to that person or someone else. (Маринковић, Лајић, 2012:155)

What is specific about the fraud in relation to other criminal offences of property criminal is the fact that in its case there is a complete absence of any form of coercion (force and threat) by the offender towards the passive object, in order to obtain the financial gain (as in case of robbery, extortion, blackmail or kidnapping). Even more, in the case of fraud, there aren't any other actions

1 This paper is the result of the research on the following projects: the project of Ministry of Education and Science which is realized by the Academy of Criminalistic and Police Studies under the name "The development of institutional capacities, standards and procedures for confronting terrorism and organized crime in terms of international organizations", number 179045, head manager of the project Prof. Dr. Sasa Mijalkovic; "Criminalistic-forensic processing location of criminal events", which is financed by the Academy of Criminalistic and Police Studies.

by the offender, he/she does not do anything about the belongings of the victim in order to take, i.e. steal something. Central and key element of this criminal offence is misconception which is caused by the offender, or maintained in order to lead the victim to do or not to do something at expense of his/her or someone else's property. It is a rule that the victim strongly believes that he/she has made a good decision, which he/she puts in action not knowing that he/she is misconceived and that that kind of decision, in fact, is not good and useful for his/her or someone else's property. In other words, offender uses misconception in order to manipulate with the victim and guide him/her to do something for his/her benefit.

It can be said that fraudsters, doing the offence, specifically use these characteristics and conditions of the potential victim: 1) altruism and kindness (ex. scams with charity donations); 2) people who are naïve and gullible (ex. a fraudster presents himself as a man of influence and someone who has a lot of connection on high positions, someone who can organize acquiring of various licenses, certificates, testimonials and papers in short notice); greed and desire for quick profit (offender offers different, short-term business offers, with great disproportion between the invested money and potential profit); and 4) the time of trouble, misfortune and/or illness (difficult financial situation, severe illness, family misfortune and things like that). Although many citizens feel safe and protected, thinking they are capable of recognizing situations when they can become victims, reality gives us right to state - *not everyone can be fraudster, but anyone can be tricked.*

Today classic profile of the perpetrator/fraudster has greatly changed. Today, a perpetrator has considerate amount of IT knowledge and experience, understands e-business and the Internet, has a power of manipulation using written resources (e-mails) and also is very well acquainted with the profiles of the people who are using the Internet. In other words, today we have more and more *cyber* offenders.

From the phenomenological point of view, the feature of the frauds is the *number* and the *dynamic* of the forms that keep appearing. It means that it is almost impossible to name all types of scams and frauds that exist in practice, because new ones are coming up and/or the existing ones get modified. The fact is that today the dominant frauds and scams are becoming those without direct physical, i.e. personal contact between the offender and the victim. Personal contact is replaced with the indirect contact, by mail (like so-called *chain letter*), the Internet (most common so-called *e-mail spam*) or any other media, when a large number of (randomly chosen) potential victims are contacted simultaneously (so-called *mass marketing fraud*). In this way the organizers of these frauds are enabled to gain huge illegal amounts of profits, and with small number of evidence which would point to their guilt. The United States Federal Trade Commission, which among other things, deals with the protection of the consumers, releases annual list of the most common frauds in the USA. The data is based on the number of citizens' reports. According to the 2010 list, the most common frauds are the *identity thefts*, eleventh year in a row (FTC Releases List of Top Consumer Complaints in 2010). This year, for the first time, on the list there are scams of imposters and fortune hunters, who in most cases presented themselves as family friends, representatives of distinguished companies or government agencies, convincing victims to give them or pay in the bank certain amounts of money. According to the frequency of offences, the Agency made a list with these forms of fraudulent behaviour: 1) identity theft scams; 2) debt collection; 3) Internet services; 4) Prizes, Sweepstakes and Lotteries; 5) Shop-at-home and Catalogue Sales; 6) Imposter scams; 7) Internet auctions; 8) Foreign Money/Counterfeit Check Scams; 9) Telephone and Mobile Services; 10) Credit Cards (*FTC Releases List of Top Consumer Complaints in 2010*).

In the next part we will show some basic features of frauds which are done using the Internet, specifically *Identity Theft* scam, so-called *Nigerian* scam and the *Internet shopping* scams.

IDENTITY THEFT (MALICIOUS MISUSE) SCAMS

It can be said that different forms and methods of the *identity theft* has been there ever since, and they are caused by wide range of motives, starting with completely benign, for example when a minor uses someone's ID for buying alcohol, to those related to economic gain, avoiding liability or committing offences (ex. terrorists in order to hide their true identity, or pedophiles taking identity of another person in order to contact the victims and share, i.e. manipulate pedophilic and porno-

graphic content on the Internet). Basically, *Identity theft* is stealing personal information which is related to the identity of a person, so that the offender could, by false impersonation, i.e. pretending he/she is the person whose identity information he/she uses, achieve his/her goal. Usually it is a fraudulent act relating to acquiring of the illegal economic/financial gain, on the expense of the person whose identity has been used, or other persons. It is a fact that a man's personal identity data are in electronic form, so the manipulation of the data often happens with a personal computer and contemporary IT systems, which at the same time, present the weakest point when we talk about identity theft protection. The concept of identity in the context of these illegal acts should be understood in broader sense, so that it does not include only the data directly related to a person's identity, but also all the other data related to that person and his/her status, like financial data, bank account, credit cards, e-banking, driver's license and registration card, insurance numbers etc.

As Swanson and associates point out (Swanson, Chamelin, Territo, 2003:517), identity theft happens in more than one way - thieves may collect data from the trash, they may steal and/or redirect mail, use intern data base access, surf the Internet in search for information etc.

Identity thefts are today especially done by computer and the Internet, putting in danger the whole IT society and e-business. In this area offenders have a wide range of methods, which they use to get relevant information; from using and activating malicious software/program (malware), unwanted *spam* messages and methods of *phishing,* to creating special websites, which are used in fraudulent way to obtain classified financial and other data of Internet users; data like ID number, username and password, payment (credit or debit) card PIN number, etc. Electronic data from payment cards, which are used for e-shopping, are specially accessible for the theft and misuse. (Urošević, Ivanović, Uljanov, 2012:77). In order to do the shopping on the Internet, buyer-fraudster needs only to have data about the card number of a certain person, to know about the validity of the card and CVV2 number (Card Verification Value 2- ID code, that is three digit number on the back of the card, which is used for payment on the Internet), and he/she obtains them doing some fraudulent acts.

The fact that numerous personal information is stored and kept on memory drives led to increased frequency of them being stolen, not only like things with certain value, but often because of personal information which are found on them. Along with personal data, in the memory of these devices there may also be found some financial and business data, like bank accounts or e-mail passwords of the owner or someone of his family. In that way, portable hard drives, laptops, PDA and USB devices and mobile phones are extremely interesting to identity thieves. One has to be very cautious because of the fact that data from these devices can be recorded by the people who work in computer service shops who after stealing data try to sell data to other offenders.

Identity theft by *phishing* is the basic method for stealing identification data on the Internet. Urošević and associates (Urošević, Ivanović, Uljanov, 2012:175) say that phenomenon of phishing and identity theft are so much connected and happen so often that no criminal offence in the area of IT high tech can be imagined without them. Basically, *phishing* is a fraudulent act of finding identification, personal data on the Internet, by sending false e-mails, or by crating false Internet websites, which are used for (fishing) leading the Internet users to reveal their classified (usually financial) data. E-mails are created in the form of warning or notification for clients that says that they have spent a great sum of money and that the card will be cancelled if they do not contact them, that they will charge them huge interest on the amount which they probably do not owe, that the account will be closed unless they type in or update certain data, like bank account number or credit card number, username, password, etc. Fraud may also be in the e-mail, allegedly sent by the lottery office, where they state that the receiver of the mail has won the award, and in order to verify that the receiver is supposed to send certain data, which may be misused later. In order to make *phishing* more successful, links are often put in an e-mail. Using the links clients can inform themselves about the ongoing activities mentioned in the mail. Links are always connected with fake websites (ex. bank or similar institution). Common reason of the sender of these e-mails is covering and hiding his/her own personal data (especially IP address of the computer), in order not to get discovered.

The fact that users of services have become more aware and more careful about certain methods of *phishing*, led to creating and using certain *viruses*, which after infecting the user's computer, send all usernames, passwords, payment cards data etc. to the creator of the virus. A big number of viruses do the function of saving typing characters on the keyboard or saving monitor processes, re-

directing the Internet traffic, generating financial and other type of transactions, stealing of personal and other type of user's data that become available to the offender.

Besides *phishing,* identity theft is also done by *pharming*. Unlike *phishing*, in this case it is not necessary for the victim to answer the mail to obtain victim's personal data -by using *pharming http (**h**ypertext **t**ransfer **p**rotocol)* demands of the Internet users, instead of going to original address, are redirected to false and malicious addresses, i.e. locations. The rest of the actions of this illegal operation are identical to *phishing.* In general, *pharming* can be realized in two ways. The first one means using virus, which in the case of user's attempt to log in to a site, for example, the site of his bank, performs redirecting to fake *phishing* site, which looks identically the same like the real site. If a person types in his/her personal information, assuming this is the real location, the one he/she wanted, the identity theft will inevitably happen.

The second method of *pharming* is based on the weakness of DNS (*domain name system*) server, the moment when the searched (wanted) Internet address is connecting with the IP addresses of the users.[2] When the victim, after receiving the e-mail containing a *phishing* page, clicks and follows that link only once, this means that every search in the future will be redirected to this fake page. The basic difference between *phishing* and *pharming* is that the victims of first one are attacked one after another, as with pharming is a different case. In short time interval there is an attack of huge number of users, who without their will, or will of the institution whose internet is under attack, have been redirected to the fake site, where the stealing of the confidential data happens (Urošević, Ivanović, Uljanov, 2012:192).

Prlja and the associates (Prlja, Ivanović, Reljanović, 2012:131) point out that the result of the identity theft of a person may be very diverse, like overtaking bank account of the victim, opening new accounts and making debts, misusing of the credit and debit cards of the victim, selling of the obtained identification data on the black market, obtaining additional data related to the victim's identity, like acquiring additional documents legally, using one's own physical features (passport, driver's license…), insurance fraud, stealing rent-a-car's vehicles, applying for tax refund, etc.

NIGERIAN SCAMS

Nigerian scam has been very common type of scam in the past two decades, with global features. Although, by name, one would think that these frauds are connected only with Nigeria (their name is like this because they appeared in this form for the first time in this country), top three countries of origin of these scams are the USA, Great Britain and Nigeria, and they are followed by Cote d'Ivoire, Togo, South Africa, Netherlands and Spain. *Nigerian scam*, or *Scam 419*,[3] appeared in the 80s of the last century, with the growing number of claims about the economic growth and development of Nigeria, based on the exploiting of oil. In the beginning, the scam was about offers for foreign investments and gaining profit in this country, and the false memorandums of the government were used. After that, offenders started applying this type of fraudulent behavior on wide population and eventually, in the last two decades of the 21st century, this *scam 419* became a popular way of fraud all over the world.[4]

Today the Nigerian scam is the method of committing criminal offence of fraud with the help of the Internet, and it usually starts with an e-mail, designed in that way to look like it was deliberately sent to the recipient. The first (*contact*) message is sent to a large number of individually non-specified persons, and the aim of this activity is making contact with a potential victim and drawing him/her into a scam (*phishing*). With the message, the receiver is notified that the sender is a member of Nigerian government, army and the like, who is trying to transfer a large amount of money out of the country, but he needs help from someone from abroad. What follows is the persuading of the victim to participate in splitting of certain money funds, to pay upfront a certain amount of money which is incomparably smaller than the amount he/she is supposed to get, as

2 IP address (Internet Protocol address) is a unique number, similar to phone number, used by machines (usually computers) in mutual internet traffic, with using internet protocol. This allows machines further processing of the information in the name of the sender (so that the machines would know where to send them) and later receiving of those information (so that the machines would know this is the intended destination).

3 *Scam 419*, as an expression for *Nigerian scam*, got the name after article 419 of the Nigerian Criminal Code, that goes under name *Obtaining property by false pretences*, and defines this criminal offence.

4 In that time the scam was done by sending letters, i.e. classic mail. In 1998 postal workers in the USA, on the JFK airport, confiscated 2,3 million letters of this type in period of three months. It was similar situation in England (Dyrud, 2005).

gain from the whole operation. In that sense, an e-mail (usually spam message) is used for asking help for transferring large amounts of money, and for that he/she will, after providing assistance (in money or money service, insignificant in comparison with the amount of money in question), receive a certain percent of the money as compensation.[5] There is a rule that the e-mails in *Nigerian scam* are not named for specific recipient but have a general feature, so that everyone can think that the message is for him/her. On the other side, the messages contain numerous spelling and grammar mistakes, because they are written by the people who are not from an English speaking area. For writing messages scammers abundantly use translating programs on the Internet, which make a lot of mistakes about rules of syntax and grammar (FBI, Common Fraud Schemes). If the recipient answers the first mail (he gets hooked by the contact message), he is by the method of *social engineering*[6] led to believe that his assistance is necessary in order to complete certain actions (for example money transfer, receiving inheritance, etc.). Details about messages may be different (money transfer, inheritance, lottery prize) but the content of the very letter that victims receive in position usually tells that the person, who is allegedly sender, is not in position to finalize certain actions by her/himself , so he/she needs a help from the recipient of the mail. Help is usually consisted of paying small percent of the total sum of the money which is in question, so that certain expenses for some made up person could be compensated; expenses like bribery, bank fees, lawyer fees etc., all that just to get to the promised money.

Persons who are mentioned in mails are often not product of imagination, i.e. they really exist, but their identities have been stolen (taken without their knowledge) and used by the offenders in order to hide their identity, or maybe by the strength of persons' authority whose identity has been misused, and to make the victims feel confident and gain their trust (prime minister of the government, bank president, etc.). When presenting/introducing themselves, offenders use false, misused name and surname and they also use photographs of other faces, found on the Internet, so that in false introduction they can be even more believable and persuasive.

In e-mails they mention amounts of money that go up to a couple of million US dollars; they also mention gold, *dirty* money on bank accounts, diamonds, cheques and other things, while the value that the senders will split up with the victim goes up to 30% of the total value of (fictional) job. Psychological pressure on the victims of the scam is additionally put by stating how secrecy has become very important and that everything is urgent, since there is a possibility that corrupted state officials may take all the money for themselves, if they find out about it. If the victim accepts the offer, scammers usually send one or more counterfeit documents with false stamps on them, signatures, false content and so like. These things should confirm what they stated in the mail. These things just make the victim's belief in the story even stronger and the victim is more determined to help believing he/she will make a big profit. After the victim pays the promised amount of money following the instructions, there is always a delay of money transactions related to the payment of the promised amount of money, and there are always additional costs for the victim, in order to get the job done. Scammers stick to the fact that by the time victim realizes that it is all a big scam, transfer of the money that the victim has already paid to the offender, will be finished, so the victim will not be able to cancel or retrieve the money. This is why scammers ask from victims to use wire transfer via Western Union or Money Gram. International wire transfers cannot be cancelled or reversed, and the person receiving the money cannot be tracked. All this diminishes the possibility of finding perpetrators (FBI, Common Fraud Schemes).[7]

5 In these mails it is stated that the amount of money is large, and the sender of the mail is the only one who knows the real figures. It is also stated that the sender is waiting to be paid out as a result of certain bank malversation, that the sender is a member of Nigerian government, and he/she is ready to share his/her money with the one who helps him make this transfer. He/she asks for complete secrecy of the operation and even communication, since the life of sender, as well as money, would be jeopardized if the corrupted officials of Nigeria found out for the operation.

6 Social engineering is the act of manipulating people into divulging confidential information about themselves. This technique is based on distracting person's attention in order to collect information this person would never give away, so that this information could be misused later (for giving away usernames, passwords or payment cards data). All social engineering techniques are based on specific attributes of human decision-making known as cognitive biases which represent .a pattern of deviation in judgment that occurs in particular situations (Urosevic 2009:147).

7 According to FBI (FBI, Internet fraud), tips for avoiding the Nigerian letter or "419" fraud are: be skeptical of individuals representing themselves as Nigerian or foreign government officials asking for your help in placing large sums of money in overseas bank accounts; do not believe the promise of large sums of money for your cooperation; guard your account information carefully.

The emails used in these scams are often sent from internet cafes with satellite internet connection. Many cafés seal their doors outside hours, at night, so the scammers cannot be controlled by the government officials. There the users are asked to show an ID or any other identification document, and there is no video surveillance, so that even when the IP address shows it is from that place, i.e. computer , messages have been sent, the offender cannot be identified. In many cases there are companies that, if money fee is paid, the company will provide counterfeit documents which are used in frauds. Offenders communicate with the victims of crime offences using mobile phone, using SIM cards, so that they can easily throw away the ones they have and buy new ones, so that they can still communicate. In the most extreme cases, scammers arrange business meetings with the victim, in Nigeria or any other country, and after that, on coming and making contact the fraudsters kidnap, take all personal belongings, and offenders call their families and ask for the ransom, sending threats about killing the kidnapped, which can happen if the kidnappers do not get the money they asked for.[8]

The biggest number of perpetrators of *Nigerian scam* belong to smaller organized criminal groups, although sometimes happens that they work alone. (Urosevic, 2009;148). If the offenders are not well organized, they will not be capable of doing bigger frauds and damaging bigger companies, but still they will be very dangerous for citizens and smaller companies.

According to Urošević (Urošević, 2009;152), in Serbia in 2008 and 2009, nine victims reported criminal offences with the elements of *Nigerian scam,* against unknown perpetrators. Damage to their financial assets caused by committing these offences was 60 000 euros, when the victims sent the money using *Western Union* and *Money Grab*. Frauds were usually done by sending spam messages, with the use of *social engineering*. After sending a reply as an answer to the contact message, further communication was done by using free accounts for e-mail, on the Internet services *Yahoo* and *Hotmail*. In the process of committing this crime, false internet addresses where presentations were found, put there by the offenders, in order to deceive the victims, were created. They also had counterfeit documents of state officials and companies from Nigeria, Ghana and other countries from the territory of Western Africa.[9]

INTERNET SHOPPING FRAUDS

This type of fraud is very common today, considering the fact that shopping and selling of diverse goods goes on using internet ads without direct contact between the buyer and seller i.e. buyer and goods. In this area of frauds special place belongs to *buying a car*, because of the frequency of the offence and also because of the significant financial damage of the victim. The fraud starts in the way that the seller – fraudster puts on an ad that he/she is selling, usually very valuable and pricy car. He/she puts it on a website, asking considerately lower price than the market value price.[10]

As a rule, such a vehicle does not exist, i.e. the seller is not its owner and the car is not at his/her disposal. All the details about the vehicle, including photographs and description are just taken from the websites specialized in selling this type of cars. Potential buyer, who is interested in the car,

8 In June 1995, an American killed in Laos, Nigeria, while following the instructions from the Nigerian scam. A lot of citizens from other countries have been reported missing. According to SCAM: The Nigerian Advance Scheme, By Audri and Jim Landford; the Internet: http://www.scambusters.org/NigerianFee.html.
Using the data from the National service for statistics, Delio says that murders or disappearances of the 25 American citizens abroad have direct connection with *scam 419,* while the others were held against their will, beaten and blackmailed. The rest of the data is equally disturbing. Caplan points out that in 2001, 15 foreigners visited Nigeria, in relation with *scheme 419*, where they were threatened with physical beatings, while the three Americans were kidnapped, and after that the ransom was paid for them - 30000 dollars. There is also a famous case of Romanian businessman Tetrescu , who flew from Bucharest to Soveto, a place near Johannesburg in South African Republic, in order to take his millions from the scam, only to be kidnapped and released after 500.000 dollars ransom was paid (Dyrud, 2005).

9 In cases of Nigeria scams whose victims were citizens of the Republic of Serbia, the case was about frauds committed in two ways: 1) sending a notification about false lottery prizes, which was used to persuade victims of social engineering method to believe that they are the prize winners, and after that they paid certain amounts of money in order get permission to claim their money; 2) sending notifications about inheritance which offenders used with social engineering methods to persuade the victims to believe that they really inherited certain amount of money; and after that they paid certain amounts of money in order to get permission to claim their money. These criminal offences were initiated from Nigeria, Senegal and Benin, joint international cooperation has not given any significant results. For hiding identity offenders used public place access, like *cyber cafés*, since the guests of these services are often identified with a unique mark which represents only general identification of certain computer or the place of connection. In communication with the victims from Serbia, offenders used identity of state officials, priests, lawyers etc.

10 We talk here about popular and well equipped car models, with small number of kilometers driven, with a service book and in very good condition. The price of these cars is almost always very low, 50 /60 % of the real value of such a car.

hoping to get a good shopping deal (bargain), sends an e-mail to the fraudster using contact address from the ads, stating that he/she is interested in the car. In reply, fraudster says that the car has not been sold yet and that it is abroad, as a rule, in a transport and freight company. After that the victim gets the instructions how and where to send a deposit or the money for the full price, most often by e-transfer to the transport and freight company. In order to make the transaction even more believable, the seller offers to the buyer services of a sales agent, to whom the buyer may send money and he/she can guarantee the buying-selling, in a sense that a seller will get the money when the car is delivered to the buyer. In a condition of confusion, in order to seize the opportunity for acquiring a good vehicle, the victim pays all the money and after that the seller and (false) agent disappear without a trace.

At the very first contact of the buyer and seller, the latter one explains why the car is so cheap - for example, he/she tells a story about his/her moving to UK, where it is not allowed to drive a car with the steering wheel on the left side. When seller asks where he/she can take a look at the car, the fraudster answers that he/she has already been to the country where the car is (for example, from UK to Germany), but the supposed buyer did not show up, so now he/she suggests a safe option for himself/herself – he/she asks money to be paid for the car, on the account of transport and fright company, which is to deliver the car to the buyer. After the buyer checks the car and confirms the deal, the freight company will transfer the money to the seller's account. Anyway, there is no freight company, so the buyer pays the money directly to offender's account. In the second scenario, the seller demands from the buyer to pay him/her half of the selling price of the car using Western Union, using his/her name and the address given by the seller (and as a rule, that is the address of the city where allegedly the car is). After the buyer does that, he/she sends a confirmation about the payment and goes to a place where the car is in order to check it out and then together with the seller go to the Western Union, raise money, which he/she previously sent, and then payoff the car. However, immediately after the payment of the asked amount has been done, the fraudster and his/her accomplice in Western Union take the money before the buyer even sets off for the journey.

CRIME INVESTIGATIONS OF INTERNET FRAUDS

Criminal investigations of the criminal part of frauds can be various, depending on the specific form of scam/fraud, with the wide range of goals which are set in front of them - from finding out if in a specific case are there any fraudulent actions, till identifying the offender and securing evidence.

When we talk about the Internet scams, the basic goal of the offender is to hide his/her IP address of the computer, which was used in contacting the victim. In that sense, the use of certain Internet services and programs for hiding IP addresses is widely spread. Such services enable anonymous sending of e-mail, without leaving any trace about the real IP address, in that way because whole of the Internet traffic (towards certain Internet addresses and pages) uses service which leaves its IP address, while the address of the real user is on the server of that service. Most of the cases of hiding addresses are referred to hiding the identity of the person who created the scam, and also persons who misuses the data of the scam's victim, in relation to identity theft. Since the Internet space is fast and dynamic that means that the reaction of the investigator in it must be as fast as possible. Chances for finding evidence in it depends on the configuration of the network computers, which in communication appear as computer servers, access gates, routers, etc. So-called *log files*, files for logging in or logging out of the users, present main source of leads, clues and evidence about committed crime offence.

The first information about a fraudulent activity on the Internet most often do not take us to the real identity of the offender, but data from more than one location is gathered, often worldwide, with the help of Interpol. After discovery that the Internet fraud has been committed, and that certain data are illegally obtained and misused, the investigator tries to get to the evidence and clues in form of electronic data about the communication made, which went on between offenders and victims, and also financial transactions which the victim made following the instructions of the offenders. Having that as an aim, all log files have to be checked in search for the IP address, so that investigator could locate service offender used for sending e-mails to the victim, and also the list of all e-mails the victim received. We do this in order to discover the mistakes the offender made and which can point out the possibility of criminal offence (for example, in the case that the offender set up a false link of some institution, by checking the place of *hosting* of the first internet site of the institution and on the other side false site, fraud can be spotted) and the place the fraud has been committed from. After isolating

IP address and time of sending e-mails from *log file*, in the Interpol (depending on the country from whose territory criminal offence was committed) they do the checks about the user who had that address at the time of committing the crime, his/her identification, finding and taking certain actions about gathering evidence in order to determine guilt.

CONCLUSION

Development of IT and global computer network enable committing traditional offences in new ways, as well as appearance of completely new incriminations, that haven't existed. To mail addresses of the citizens more often arrive tempting, and at first sight, regular business offers of various natures, from those of financial investments, to applications for borrowing money or participating in different projects. The nature of electronic communication enabled cooperation with huge number of people, and because of that, besides everything else, an attractive place for criminal activities. The target of organized criminal groups, which use sophisticated and advanced computer means and which are, from technical point of view, difficult and complicated to discover, find out and punish, are not only persons ready to try their luck in fortune games, but this target group is broadened to business and economy institutions and systems. It can be said that today on the Internet, there are all forms of criminal offences - identity theft, in relation to payment cards, stealing the e-banking account, *pedophilia*, and so-called Nigerian scams, which tell mysterious story about business cooperation, where it is difficult to find out the identity of the offenders.

Starting knowledge about fraudulent activity on the Internet most often does not lead us to the real identity of the offender, but the data is collected from more locations, very often from around the world with the help of Interpol. In investigations key point is to identify the IP address of the computer which was used by the offenders to talk to a victim, and also at what time they did it. Further on, additional checks are done about the user who had that address at the moment of committing this offence, his/her identification, finding and taking certain actions about gathering evidence in order to determine guilt.

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MODERN CONCEPTS AND METHODS OF THE CRIMINALISTIC INVESTIGATION OF ECONOMIC AND FINANCIAL CRIMINALITY IN MACEDONIA

Assistant Professor **Svetlana Nikoloska**, PhD
Teaching Assistant **Marijana Blazevska**, MA
Faculty of Security, Skopje, Republic of Macedonia

Abstract: Economic and financial crime is a serious threat to the development of every country, and is especially is harmful and dangerous for the development of societies in transition, development of democracy and respect for human rights. Perpetrators exploit circumstances that affect or create conditions that are skillfully used with a singular goal of acquisition of unlawful gains or "wealth". Law enforcement agencies are faced with serious problems relating to the detection, clarification and evidencing of such acts. Studies of this crime in Macedonia indicate a condition of poor conviction percentage of the perpetrators, with 12% of the total registered offenders in the period from 1997 to 2010 and even lower rates of confiscated proceeds from crime (2%). This indicates the need for the application of modern concepts and methods to be applied in criminal cases, such as case studies, clarifications of criminal acts and providing relevant evidence for the conviction of all involved offenders, as well as evidence of criminally acquired proceeds and property. The full clarification of the criminal case is the basis for conducting successful criminal proceedings and pronouncing appropriate sanctions against perpetrators, but also imposing the confiscation measure for all criminally acquired property and proceeds in the country, but also search for and seizure of those concealed abroad. To conduct quality investigations the law enforcement agencies needs tools such as good legal decisions and legislative measures and actions in order to clarify and provide evidence. The application of the new concepts of parallel criminal and financial investigation and research methods of criminal proceeds and property are the basis for quality running of pre-trial and investigation, and the public prosecutor should ensure good cooperation, coordination and exchange of information among all relevant subjects in a given case. The court should be provided sufficient evidence to be able to pass "good and quality judgments" and the perpetrators should be aware that illegally acquired wealth represents someone else's property, usually the resources of the state or its citizens, and should be returned to them.

Keywords: economic and financial crime, criminal and financial investigation, contemporary concepts and methods, criminal proceeds, confiscation of property.

INTRODUCTION

The research of economic and financial crime is a serious and complex problem and it is under jurisdiction of several state authorities which have police powers. The range of criminal activities that are covered by this type of crime is wide, especially in the period of transition in which even after two decades the Republic of Macedonia still finds itself. Complexity of this crime is a problem that needs to be approached with great expertise, professionalism and motivation of law enforcers to detect, clarify and - which is most difficult - to prove criminal behavior, having in mind that it is performed by breaking or circumvention of legislation, forging documents and other means of enforcement, and the time factor is a very important segment, because something that was unlawful during a certain time period becomes permissible legal activity by changing the specific statutory provision.

The research of this crime should specifically take into account the changes in the legislation regulating a particular area, procedure, etc. This criminality has several important characteristics: low perception, complexity, difficulties in detecting and processing, mild penal policy, legal imprecision and problems arising in the status of delinquents. It can be regarded according to the scope and severity of consequences or damages which are caused, primarily as financial and social

consequences, and the fact that this type of crime causes certain processes which can lead to destabilization of social relations. They present serious threats to the development of democracy, rule of law, human rights and national security, as well as stability and economic development in South East Europe and beyond.[1]

Consequences of the economic and financial criminality are felt by the state and its citizens, but there is a "boon for offenders" on the grounds that there are only a small number of detected cases, fewer sanctioned offenders, and even fewer of them who have lost their criminally acquired wealth. There is a thought among the perpetrators of this crime, that it "is better to be in a position, to enjoy the wealth and privileges", even at the risk of a prison sentence. Most importantly, they strive to save their acquired wealth at all costs, so that they do not choose means and methods to achieve this goal. This crime increasingly gets shapes and forms of organization by the perpetrators and the division of criminal roles in the planning, perpetration and concealment of criminal proceeds. Theoretical considerations of this crime show that it is essentially the same everywhere, but may differ from one economic, political and legal system to another in intensity, manifestation forms, the degree of endangerment of state and activities of the institutions that had the main role in the detection and prosecution of its perpetrators. This criminality always represent complex criminal phenomenon where perpetrators use authorization, powers, influences, particularly in order to avoid detection and for this purpose they use specific methods and techniques of preparing false documentation, taking special care not to initiate any research procedures regarding their wealth, which in most cases has been acquired illegally and with abuse of legislation or authority arising from their functions, duties or activities in which they are professionally involved. In that direction the struggle to prevent this crime, so the detection and clarification and proof is necessary well planned, coordinated and teamwork of the public prosecution with the authorities who have police powers, but by fully utilizing the services of administrative financial intelligence in order to fully clarify the criminal cases, providing evidence of criminal acts, the perpetrators of such crimes and provide evidence for criminal proceeds and enabling his confiscation. As a new concept by which are handled is conducting the criminalistic investigation along with initiating and financial investigation, it would mean at the same time clarification and providing evidence of offenders and offenses which are committed, control of their transactions and providing evidence of type and amount of criminal proceeds and assets acquired. In the Republic of Macedonia also are formed other government organs that have relevant competencies for research on economic and financial crime, or special state authority for administrative financial intelligence whose role is quite significant in detecting crime through financial transactions, or through monitoring of financial transactions providing evidence of the identity of the perpetrators, but their criminal behavior. . In recent years, law enforcement preference the team, planned and coordinated action in research in economic and financial criminality by the principle of case studies or the resolution of the criminal case in its entirety, with clarification of all crimes, identifying all offenders, tracing, freezing of criminal proceeds for the purpose of confiscation upon completion of the criminal proceedings and decision of the final court decision.

CONCEPT AND DEFINITION

In order to investigate a certain crime, it is necessary in the first place to define it and differentiate its forms and shapes as separate offences provided for in the substantive criminal law. Literature offers no single definition of economic and financial crime. However, there are three main approaches to defining the phenomenon:[2]

1) criminal law approach,
2) criminological approach, and
3) criminalistics approach.

Penal law approach (criminal law approach) starts from the criterion the attacked object specified and accepted in a separate part of the penal law - crimes whose object of a direct assault are

1 Arnaudovki Lj., Nanev L., Nikoloska S., (2009), Ekonomskiot kriminalitet vo RM, MRKPK, br.1 Skopje, p. 176
2 Arnaudovski Lj. (2008), Metodoloski problem na statistickoto evidentiranje i sledenje na ekonomskiot kriminalitet, MRKPK, br. 2 – 3, pp.472 - 473

economic relations, the commercial and the commercial system. **Criminological approach** to defining the economic and financial criminality starts from appearing forms and forms of criminality, but preserves and etymological side at criminality or the causes and conditions that affect on this crime, and certainly their personal and professional characteristics. On these two approaches connects the **third approach - the criminalistics** as a very important for detection of the economic and financial criminality are required expert knowledge and proper planning, combining and executing operational measures, investigative actions in order to provide material evidence, crucial for his proving. Taking into account the fact that, criminalistics occupies a significant place in the corpus of the scientific disciplines that are occupied by the phenomenon of crime, it is a social occurrence which is continuous dynamics, as a structural and quantitative and qualitative too, it is necessary to improve and supplement all scientific and practical knowledge aimed at preventing criminality. Indicating, the need the criminal activity to be more scientific, through the application of scientific and practically applicable methods, measures and actions in the research process. It should be bear in mind that the application the criminal law is impossible without providing proof - defined legally relevant facts, and that is possible through the application of the provisions and the rules of criminal procedure which without knowledge of contemporary criminalistics and active application of scientific achievements and experiences would be a great danger and metamorphosis of its opposite.[3]

Criminalistics exists there where there are no criminal proceedings. Criminalistic methods, as opposed to procedural actions, are taken before the initiation of criminal proceedings. "[4]The role of criminalistic and the criminalistic approach is crucial because without criminalistic investigation, there is no criminal investigation. Criminalistics contributes to detect crimes and to trace the perpetrators, who will be tried in criminal proceedings on the basis of the evidence provided in the criminal investigation with using law methods, techniques and actions.

As the most comprehensive definition would be as follows: "Economic and Financial crime is non-violent crime that is carried out within a legal-economic and financial relations where perpetrators with abusing their attributes (professional and vocational), its function and powers that arise from it, status and power of a criminal acting (active and passive) with disrespecting of the law, conflict of interest or with omission of obliged supervision and control and with fraudulent behaviors and elements of forging, acquired with unlawful property gain for himself or for other entity (legal or physically), but in the criminal realisation are served with "trading with influence" in order not to be detected and sanctioned, but also to "shelter criminal proceeds acquired" from the reach of the forces of justice in national and international level".

Economic and financial crime in society is considered one of the most dangerous criminal types because it is difficult to detect, offenders in society are mostly distinguished and respected citizens and damages which are applied are of a larger scale. Especially is characteristic that much of this crime is under cover or directives of the government, that this type of crime included in the group organized and unavailable for research by the law enforcement, whose members often appear as accomplices or least hiders.[5]

Exploring the long term the most abundant manifestations and forms of economic and financial crime I came to a conclusion that this crime can mainly be divided into two basic groups of offenses, from which the first are aimed at criminal behavior that perpetrators avoid the legal obligations to the state (non-payment for health, pension and disability insurance, tax evasion, customs offenses, etc..), and in the second group are the criminal behavior with which the perpetrators, taking advantage of its position, power, position and influence, i.e. taking their position and powers committed criminal acts with that unlawfully extract funds from the State Budget. And with two sets of economic and financial crimes most common victim is the State directly, and citizens indirectly. And only a small fraction (offenders and their families), are "profiteers" from committed crime, and that maybe will never be detected, because the evidence is invisible" or well hidden, from the point of view that "no one to discover." In the Republic of Macedonia Economic and financial offenses are covered in over the head of the Criminal Code and how crimes against elections and voting; against labor relations; health; against the environment; against property; against public finance, payment and economy; against official duty; justice; against legal traffic and public order.

3 Marinković D., (2010), *Suzbijanje organizovanog kriminala*, Prometej, Novi Sad, p. 335
4 Vodinelić V.,(1995) Kriminalisticka taktika I, Skopje, prezemeno od Vinberg A.J., p. 159
5 Nanev L.,(2008), Kriminoloski obeleznja na makedonskiot ekonomski kriminalitet niz podatocite na organite na kazneniot progon, MRKPK, br. 2 – 3, Skopje, p.557

The research of emergent forms, scope, structure and dynamics of economic and financial criminality suggest that most committed offenses against public finance, payment and commerce and crimes against official duty. Namely, according to research of Dzhukleski and Nikoloska[6] in period 1997 - 2006, of the total detected economic and financial crimes, 48.5% of the group are offenses against duty, 40.2% against public finance, payment and commerce. And in terms of reported offenders, 48.4% are for offenses against official duty, 39.9% for offenses against public finance, payment and commerce. These indicators suggest that these two groups are most committed economic and financial crimes in the country. For the same period Nikoloska[7] is being investigating offenses against official duty and therefore research as most committed occurs, "abuse of official position and authority", with 64.1% representation, and "forging official documents", is 19.2 % representation. According to this research, a total of registered offenders in the period 1997 - 2006, 23.9% were charged, and of 53.2% of defendants are convicted, or of the total reported only 12.7% and convicted offenders.

Mentioned groups of the economic and financial offences are investigated for the period 2007 - 2011 in terms of reported, accused and convicted offenders. According to data on crimes against public finance, payment and commerce reported are a total of 2800 offenders, and offenses against official duty 4995 offenders or a total of 7795 offenders. Of the total number of reported perpetrators 38.9% are charged, of the defendants 66.8 are sentenced offenders. Or of the total reported 7795 offenders for both economic and financial crimes, convicted are 2026 offenders or 25.9%. This percentage of offence, if compared with the group offenses against official duty is 15.41%, or of a total 4995 offenders, declared guilty, are sentenced 770 offenders, and that means an improvement over previously investigated period where it was 12.7% predetermination. From the data it can be concluded that in the investigated period has improved the situation with the closure in court of criminal cases for most committed economic financial crimes. For preparation of this paper did research on the same groupings of economic and financial crimes for the period 2010 - 2011 and of the individual offenses in terms of reporting, prosecution and conviction of perpetrators.

Table. 1 Crimes against public finance, payment and economy

No.	Perpetrators of criminal offenses	2010			2011			TOTAL		
		suspected	charged	convicted	suspected	charged	convicted	suspected	charged	convicted
1.	Money counterfeiting	149	60	53	128	61	51	277	121	104
2.	Money laundering and other proceeds	14	1	0	13	7	6	27	8	6
3.	Issuing cover check and credit card abuse	10	6	3	8	7	3	18	13	6
4.	illegal trafficking	2	3	2	0	0	0	2	3	2
5.	customs fraud	44	25	22	35	32	29	79	57	51
6.	smuggling	34	26	25	26	24	21	60	50	46
7.	Concealment of goods that are the subject of smuggling and customs fraud	9	5	4	9	5	3	14	10	7
8.	tax evasion	264	92	58	189	119	85	453	211	143
9.	Falsification or destruction of business records	20	17	10	18	23	14	38	40	24
10.	Abuse of power in the economy	3	4	4	3	1	1	6	5	5
11.	Other	71	24	22	43	29	27	114	53	49
	Total	620	263	203	472	308	240	1092	571	443

6 Dzukleski G., Nikoloska S., (2008), Ekonomska kriminalistika, Grafik Mak Print, Skopje, p. 159 - 160
7 Nikoloska S., (2008), Krivicni dela protiv sluzbenata dolznost, Grafotrans, Skopje, pp. 78 - 79

In 2010 and 2011, total 1092 offenders are reported for committed crimes against the public finances, payment and economy, of them for tax evasion are reported 453 offenders or 41.48% representation, which is almost in the same frame from the previous research but the percentage of convicted for total performed work of this group was 52.28%, 77.58% of whom were convicted person. Or it could be that of the total reported 1092 offenders convicted are 443 people, with 40.56% are predetermination. This is an indication that investigators are increasingly providing quality and relevant evidence against the perpetrators of these offenses.

Table 2 Crimes against duty

No.	Perpetrators of criminal offenses	2010			2011			TOTAL		
		suspected	charged	convicted	suspected	charged	convicted	suspected	charged	convicted
1.	Negligent operation of the service	56	21	11	37	25	11	93	46	22
2.	misuse of official position and authority	916	192	90	692	267	75	1608	459	165
3.	Embezzlement in the service	16	6	6	12	8	10	28	14	16
4.	Fraud in the service	3	4	4	6	3	3	9	7	7
5.	Serving in office	8	2	2	2	4	4	10	6	6
6.	Receiving a bribe	21	14	13	14	12	8	35	26	21
7.	Giving bribes	4	7	7	9	7	7	13	14	14
8.	Failure to order	4	0	0	0	0	0	4	0	0
9.	trading in influence	2	4	3	0	0	0	2	4	3
10.	Forging official documents	35	9	3	46	23	11	81	32	14
11.	Other	2	2	2	7	9	4	9	11	6
	Total	1067	261	141	825	365	133	1892	626	274

In 2010 and 2011 are carried total 1892 offenses against official duty, of which 1608, abuse of position and power, or is it 84.98% of the total number of reported perpetrators. Of the total reported, charged are 626 or 33.08%, and from them are convicted 43.76%, while of reported perpetrators 14.48% are convicts. This percentage of conviction is quite low and it is the reason for finding appropriate solutions in the research process of economic and financial crimes to be given more attention in relation to the application of legal measures and actions in the provision of relevant evidence of criminal acts. But, we should not overlook the fact that in the process of conducting criminal proceedings against the perpetrators of these crimes corruption is present, which is another problem that deserves special attention for research. From practical experience, we can say that although corruption is present, there is a small number of initiated criminal investigations against judges, prosecutors and lawyers. At the time of preparing this very paper, the public prosecutor in the Republic of Macedonia was arrested under reasonable grounds to believe that he had committed crime of "abuse of official position and authority" because he had allegedly kept criminal charges against the perpetrator of another crime with elements of illicit trade in weapons in his drawer.

CRIMINALISTIC RESEARCH

In law state the criminal investigation must be permeated with the spirit of ethics in which the goal justifies the means. Hence, the ultimate purpose of the criminal investigation is that through operational work in the preliminary investigation should not only reveal the crime and its perpetra-

tor to prove at any cost, but to fully discover, clarify and prove criminal situation with all committed criminal works involved perpetrators and of course, to provide compelling evidence linking offences with offenders. The term criminalistic investigation (crime analysis) refers to the general concept and discipline that is practiced in the police community. It is also used the term (criminal analysis) to describe a complete discipline that applies to offenders, victims and places. Criminalistics research is developed in specific disciplines, i.e. different types of criminalistic research targeted at specific investigations[8] of special group criminal acts that have the same or similar criminalistic characteristics.

"The criminalistics research can begin and go: of the potential or known offender, of criminogenic hotspots and factors, of criminogenic and pathogenic environment and from the crime to the unknown perpetrator."[9] Characteristic of economic and financial crime is a departure from the suspected perpetrator, usually the first findings related to the perpetrator or group of perpetrators, and the first indications related doubts of acquired treasures that legally are difficult to be acquired. Criminalistics research is actually operational activity of directly competent authorities which have police powers and police for all crimes, and the Financial Police and Customs offenses whose research are competent. In the process of the criminal research quite a bit of the criminal investigation significant is a tactics that Boba[10] defined as "tactical criminal investigation is a study of recent criminal incidents and potential criminal activity by examining the characteristics of how, when and where the activity occurred to assist in developing scheme, to being investigated to identify the suspect and to close the case." Despite tactical research, operational research is also an important part of taking concrete measures and actions by authorized officials to provide evidence of criminal acts and evidence of status offenders and their criminal role in a criminal situation.

Criminalistic research is guided by the system of information to fruition

Research of the criminal procedure starts with the initial findings - information about criminal activity, the beginnings of doubt to develop into the process of search for suspicion. Without systematic application of that research as organizational tactical principle there is no detection because they can detect only one who knows how to question and doubt. According to the definition of Hans Valder, [11]"**doubt means more or otherwise be assumed from what is shown." "The suspicion is just a sequence of judicial realization is not its being, but, on the other hand, makes the core of the pre-trial proceedings. It is the golden bridge, the development criminalistic processing and criminal procedure, may lead to understanding the famous "**.[12]

The initial grounds for suspicion have the task of initiating a preliminary investigation which, it aims finding and securing the overall evidence. Operating officer after the initial criminal - tactical situation creates a route for finding out "**what happened".** In this phase, information is collected and made their examination aimed at determining: the factors that condition the criminal occurrences; material consequences of crime and criminal conversion.[13] "It should be noted that as a major factor for the knowledge of a crime is a factor, "man", but how to exploit the potentials of the individual in favor of disclosure and explanation of crime. The informant is inevitably tool to the criminal operation, which as the main carrier of the "criminal presentation service has great significance in repressive and preventive preventing crime." "The term informant mean physical entity to which operating officers systematically, temporarily or permanently and discretely give them criminal - relevant information to specific criminal conduct, as well as the perpetrators of such socially harmful behaviors. Secrecy is the most important element in defining the informant. [14]"Professional informant in some way is an expert consultant to operative, which may not always be up to date with all the happenings, because quite often there is a change of the law, so that the permitted statutory passes with amendment in the law in illegal, unlawful, and the same is known to informant of his area either by training, expertise or facility. Besides the informant as the source of

8 Boba Rejhel, (2010), *Kriminalističko istrazuvanje*, Nampres, p. 62
9 Vodinelik V., op. cit., p. 52
10 Ibid. p. 63
11 *Kriminalistisches Denken*, Hamburg, 1975, p. 44.
12 Vodinelik V., op. cit., pp. 230 - 231
13 Dzukleski G., (1995), *Kriminalistićka kontrola i obrabotka na krivićnoto delo danoćno zatajuvanje*, Bezbednost No. 3p.607, Skopje, p. 607
14 Angeleski M., (1992), *Poim i klasifikacija na informatorite,* Bezbednost No.2, p. 146

knowledge are used and legal sources of information - records of state agencies and institutions that are responsible for a certain area (the payment of taxes, employment, real estate cadastre records, etc.)... As legal source are and audit reports, reports of inspection services, but are used and information published on the web pages, and it usually records for possession of movable and immovable property of public servants - declarations that are submitted to anti-corruption commission. Based on available data and initial measures undertaken legally by checking the business documentation, operational employees build the versions for possible ways to carry out criminal acts, that make forecasting for method committing the crime, perpetrators that are involved and the means and methods of criminal activity.

"Estimates of the crime, the possible forecasting and setting the versions based on indicational methods as logical operation of analysis and synthesis."[15]

Criminalistic research of economic and financial crime is through the application of basic measure which is applied to the first stage, and this is the review and inspection of business premises and inspect the business documentation. This measure is implemented **"in the presence of an official and responsible person to make review or inspection of certain facilities and premises of state authorities, institutions exercising public powers and other legal entities and to make an inquiry into certain documentation."**[16] In a situation more extensive, more comprehensive and complex application of the measure examination or search premises or insight into business documents, the need for cooperation with certain professional services or authorities within their powers, also have the right to take this measure, and have staff whose specialty running business and financial documentation (Administration public Revenue, inspection services, etc..) and is primarily aimed to selection of relevant and elimination of irrelevant documents ." [17] This measure is complex and requires special attention and expertise of operational employees, but the additional complexity of a situation is when it has grounds to suspect that criminal activity is related to multiple entities. In those cases is applying group taking the above measures, which means at the same time in different places **are taken collective measures to review, search and insight into business documentation.** The purpose of the review documentation is to determine the state of the business books and records and to find false or fictitious documents. In this direction, operational employees need to establish the following facts: the subjectivity of the legal entity (whether it is a state authority, institution, commercial company, institution, a private entity, performing in public, civil society and so on.); identifying the official or responsible person as the perpetrator, the legal conduct of business records; lawful conduct material and financial accounting and determining elements, fictional, falsification or destruction of business documents, or the existence of dual documentation; legal proceeding, determination of double payments, fictitious orders for payment; establish connections with other entities in the criminal proceeding; way of keeping business documentation, and acting in accordance with the statutory storage period and destruction; existence blank enumerated patterns - especially payment orders or payment etc..

Criminalistic research takes place in two phases Crime control and criminal processing. Crime control is an operational-tactical measures and actions in cases where operational employees have general doubts, raising the level of suspicion by taking initial operational checks is begin with the second stage of criminal processing. **Criminal processing** as planned and targeted operational activity stems from a criminal case or multiple cases in order to the crime be established by collecting facts and figures that have important evidentiary information, **"whether there is a relationship between the perpetrator and the criminal case, i.e. to determine whether a particular assumed causality is justified.** The purpose of the criminal process is to provide relevant evidence to file criminal charges against the perpetrator or perpetrators, because, well, it is a kind of organized crime in which are involved more people - perpetrators and criminal acts carried out in several places, depending on the crime that was performed. "Criminal **processing has the following objectives: to** determine the existence of a criminal event, to determine the scope of criminal activities, to expand the discovery of possible new ways of execution and to allow access to the perpetrator (perpetrators).[18]

15 Dzukleski G., op. cit. 609
16 Art 144, st. 2, t. 6, Zakon za krivicna postapka Sl. Vesnik na RM br. *15/05.*
17 Banović B., (2002), *Obezbeđenje dokaza u kriminalističkoj obradi krivičnih dela privrednog kriminaliteta,* Beograd, Zemun, p. 256
18 Dzukleski G., op. cit. p. 611

In the second phase of the criminal investigation, are applied the following investigations: **searched** as action research facilities, persons and objects under the conditions and in the manner prescribed by law, and the search of the home and search of the computer are ordered by the court with a written and reasoned order upon request the Attorney General; **temporary provision and seizure of objects or property** - is a measure that is applied in order temporary seizure of objects that can serve as evidence in criminal proceedings, they are consuming with a confirmation and surrender of keeping the public prosecutor or the body determined by a special law or otherwise to ensure their safekeeping; **temporarily consuming and computer data** and data stored in the computer and related devices for automatic or electronic data processing equipment used for the collection and transmission of data carriers data and subscriber information which are available to the provider; **temporary seizure of letters, telegrams and other shipments; handling property data bank secrecy in bank safe deposit box, payment tracking and transactions accounts and temporarily stop performing certain financial transactions** –it is applied if there is reasonable suspicion that a person receiving their bank accounts, store, transmit or otherwise dispose of proceeds, and the yield is important for the investigation of a crime or the law is subject to the seizure; **enumeration seized records, documents and technical recordings**[19] are done when they can be used as evidence. If this is not possible, the records will be placed in the casing and sealed. The owner of the records or documents can put their own stamp on the wrapping. Sheath opens the public prosecutor and forensic investigative action which determines when the determination or assessment of an important fact to obtain an opinion from a person who possesses the necessary expertise. Expert witness shall be determined from the existing list of experts by the court on the basis of expertise, experience in a relevant area, technical equipment, the reputation of the profession and other circumstances that are important for providing objective expert opinion. Expert takes on the orders of the authority conducting the proceedings (court), is provided and the procedure for analysis of business books and documentation. If a certain kind of expertise is no institution of higher education, scientific institution or professional institution or expert can be carried out under the authority of the state administration, such examinations, and especially more complex, it will populate a rule such institution or body. [20]

In recent years, more applied and specific investigative measures provided for first in 2005 and eight measures and actions, and the list is enriched with 4 special investigative measures in 2010. Legislator provides special investigative measures that are aimed at detecting organized crime and economic-financial part of organized crime when it is committed by a criminal group or criminal association, and are provided the following: (1) monitoring and recording of telephone and other electronic communications in a procedure established by a special law; (2) monitoring and recording at home, indoor or enclosed space that belongs to the home or premises designated as private or vehicle and entering in the premises in order to create conditions for monitoring communications; (3) secretly tracking and recording of person and subjects with technical means outside the home or office space marked as private; (4) secret insight and search a computer system; (5) automatic or otherwise, search Data comparing; (6) insight with realized telephone and other electronic communications; (7) simulated purchase of objects; (8) simulated giving and receiving bribes; (9) controlled delivery (controlled delivery) and the transport of persons and objects; (10) use of undercover agents to monitor and collect information or data; (11) simulated bank account opening; (12) simulated the registration of legal entities, or using existing data collection entities.

In cases where there are no available knowledge of the identity of the perpetrator, the special investigative measures can be determined according to the subject of the offense. Given the fact that with the special investigative measures are getting into the zone of protected constitutionally guaranteed freedoms and rights of citizens, their application must be within the legal provisions and principles. And, it is provided with the Recommendations of the Committee of Ministers of the Council of Europe for the 2005[21] special investigative measures, and concerns that the results with which comes with the application of this measures can be used as evidence in criminal proceedings

19 Same Art. 201
20 Same Art. 236 - 243
21 Recommendation Rec(2005)10 of the Committee of Ministers to members states on *"special investigation technique"*, in relation to serious crime including acts of terrorism.

only if these measures are taken in accordance with the following principles: [22]legality - application specific or special investigative measures must be expressly provided for (and accurately consolidation) by law; subsidiarity - their application comes into consideration only if milder measures can not achieve the set order, and it is preventing, detecting and proving certain crimes; proportionality - there should be proportionality between the violation of citizens' rights and freedoms with the application of these measures and the severity of the crimes for which discovery and proof apply. In other words, their application of the question only to serious offenses, i.e. offenses provided for by law and court supervision - the court is the one who approves or issued an order for the application of special investigative measures, exerting control over their implementation.

FINANCIAL RESEARCH

In the research of the economic and financial crime as a newer concept is applied financial research which its inception there is in September 2001 with the establishment of the Directorate for Prevention of Money Laundering,[23] which in 2008 was renamed the Office for Prevention of Money Laundering and Financing of Terrorism[24], and in 2012, it was named as the already accepted worldwide title for such institutions - Direction for financial Intelligence. [25]

The Direction for Financial Intelligence is a center for Analysis of financial transactions obtained from the subjects - financial and no financial institutions and persons who perform activities of public interest (solicitors and barristers) and acting at the request of law enforcement (public prosecutor's office, police, financial police and customs administration) in relation to research of suspicious transactions for already initiated criminal investigation. But they collaborate also with Administration of Public Revenue for research transactions related to tax evasion or check revenues.

In 2011, the Direction Financial Intelligence (FIU) law enforcement acted on requests of law enforcement and the Public Revenue Office and carried out acts of financial research. The following table shows the requests and reports submitted by the Direction towards to law enforcement and for the existence of grounds for suspicion of money laundering and other crimes.

Table 3 Reports submitted by the Financial Intelligence Direction of the Republic of Macedonia at the request of state bodies[26]

Authorities to that submitted reports / notifications	Submitted reports for money laundering and financing terrorism	submitted reports for other crimes
Public Prosecution	2	4
Ministry of Interior - Police	17	47
Direction of Financial Police	3	24
customs Administration	0	5
Public Revenue Administration	0	22
FIUs of other countries	0	5
Total	22	107

Direction of Financial Intelligence to the competent institutions has provided a total of 22 reports and 107 notifications, while 22 items were placed ad / acts since the analysis does not set any suspicion of committing a crime. The table no. 3 shows the number of submitted reports of suspected money laundering activities or the financing of terrorism, or submitted reports of committing another crime to the competent authorities, as well as FIUs of other countries.

22 Marinković D., (2010), *Suzbijanje organizovanog kriminala*, Prometej, Novi Sad, p. 267
23 Sl. Vesnik na RM, br. 70/01.
24 Sl. Vesnik na RM, br. 04/08.
25 Sl. Vesnik na RM, br. 44/12.
26 Data are taken from the Annual Report of the Office for Prevention of Money Laundering and Financing of Terrorism of the Republic of Macedonia, now renamed as the Financial Intelligence Directorate

Pursuant to Article 34 paragraph 4 of the Law on Prevention of Money Laundering and Financing of Terrorism[27], the Department can exchange information with the competent authorities for investigation and oversight bodies, in order to prevent money laundering and terrorist financing. In this basis during 2011 to the Department are submitted a total of 83 requests for data exchange information from the competent authorities for investigation and to prevent money laundering, terrorist financing or other predicate offenses. Direction within their jurisdictions provide information and perform financial analysis for all submitted applications. According to Article 36 of the said law in the course of 2011, the Direction has submitted orders for provisional measures to banks for temporary detention of transactions in the amount of MKD 14,913,110.50 826,794.00 U.S. dollars and EUR 9545.33.

Financial investigation is a procedure which is the more timely procedure that should be taken in all cases where the prosecuting authorities have the operational information that are acquired criminal income, but their confiscation is possible only if we identify them or determine their current situation, where money and are converted into other property or wealth. Recognition of the importance of financial investigative techniques are stressed in implementation of law for confiscation, against drug traffickers first, and then against all modes of criminal action. Ability of law enforcement agencies to adopt a flexible and integrated approach to the complex financial crimes such as money laundering, will immediately give results. By integrating financial investigative techniques in the arsenal of law enforcement forces we have the opportunity to become as flexible as criminals who are currently forced to prosecute. Also, law enforcement forces to gain the opportunity to benefit from the confiscation laws, to use financial information from information of drug-related cases and other criminal cases, as well as to come to a financial intelligence, which can be useful in future cases. One of the most important messages is that money laundering and complex financial crimes will be part of our future. In order a detective, investigator or agent to adequately deal with such criminal activities, he must have the right attitudes, the right training and administrative support. [28]

Criminalistic investigation aims to establish evidence of a criminal offense, evidence of the offender, characteristics of the offender, the motive of criminal acts, the means of enforcement and harm or gained illegal profit. But it still happened with illegal property proceeds benefit is a problem that should be investigated through the implementation of comprehensive financial investigation which aims at: the establishment of the proceeds of crime (type and amount); determining property that can be confiscated (identification of persons, property that is subject to confiscation or extended confiscation) and to determine the conditions for provisional measures (seizure / security). [29]

The purpose of a financial investigation is to identify, monitor, seize and confiscate the proceeds of crime in parallel with criminal proceedings of criminal offense that results in a material benefit. Financial investigation is guided by the following concept: teamwork; concept piece by piece and the concept of integrated financial investigation which is conducted on the principle "of doubt about the existence of the crime until the property." No matter under which concept will be conducted a financial investigation, you should pay attention to more important elements, such as: attention to detail, because a great deal of information that at first glance seem insignificant, can be crucial to the investigation; following the money, because their path may lead the investigation to key figures and events, but also to unexpected results in two directions reactive, i.e. to investigate what happened before the beginning of the investigation and proactive - to explore what happened during the investigation. To understand the procedure of conducting financial investigation under the principle that "the data lead the investigation", I present the case of the practice of the Office for Prevention of Money Laundering and Financing of Terrorism and the Ministry of Interior of the Republic of Macedonia, and in coordination with the primary Public Prosecutor's Office for Organized Crime and Corruption. Previous act is "abuse of official position and authority ".

MM person as manager of firm A concluded an Agreement for purchase of movable property, which was previously pledged, because securing a claim by a state institution. Movable property further are resell overseas on firms in other state, that brought about the damage of the country with around 500,000 EUR. Requested information regarding the property sold and the physical and legal entities

27 Sl. Vesnik na RM, br. 04/08.
28 Medinger Dz., (2009), *Perenje pari – Vodić za krivični islednici*, vtoro izdanie, Data Pons, Skopje
29 Financial investigations and confiscation of the proceeds obtained from crime, Training Manual for the prosecution and judiciary bodies, CARDS Regional Programme 2002/2003, Skopje, 2006, p.38th

involved in two foreign financial intelligence units. As indicators for suspicion of money laundering occurring: high amounts of payments to firm A itself to themselves, based compensation, registered cash raising a large amount of funds for business trips, conflict of interest of the manager of firm A and firm to which is sold movable property and mutual family connections, resale movable property, which was previously pledged in a state institution, and it was not selling, order unlawful appropriation of property, money with dubious origin, the existence of multiple legal entities with headquarters at the same address registered for the same activity.[30]

When conducting criminal and financial investigation, certain methods are applied for full exploration of the origin of property and proceeds (legal and illegal). According to the Law on Financial Police[31], operational employees are to apply the following methods:

- **Method of net worth**, which is the application of mathematical operation with a specific formula for calculating net worth. The formula for the calculation is as follow:[32] property and assets (I) minus debts (D) is equal to the net value (NV) minus the net value of the initial year (NP) is equal to the increase (or reducing) of net value (N), plus personal expenses (LT), plus personal losses (LG) is equal to total assets (U.S.) minus legal income (LP), is equally of undeclared or illegal income (NN).
- **Cost method** is indirect method of proving of unreported and illegal income, used in financial investigation above suspects for which that there are grounds for suspicion that have much higher consumption of legal earnings.
- **Bank deposits method** is applied for determining undeclared taxable income through the analysis of the total deposits of all bank accounts, cash and other transactions.
- **Percentage margin method** is applied for the calculation of certain measurements of business relations with certain standards for these business relationships by using standard percentages and ratios of the same or similar business operations.
- **Method of special items** - is used to determine that certain transactions carried out by the taxpayer during the year are not shown completely or are shown partially in his tax return.
- **The procedure for determining unreported** income maintained are based on the information and material evidence collected by applying the methods of proof of income to determine undeclared income or assets from unknown sources that are not paying taxes, in writing notifying the Public Revenues to initiate the procedure for assessment and collection of public revenue for that property or income. Procedure itself of unreported income or proceeds refers to the determination of elements for the acquisition of proceeds of another way other than what is legally registered (based on salaries, rent, royalties, etc.). Refers detection Proceeds from acquisition illegal activities which related to illegal production and services, illegal or illicit traffic or otherwise.

CONCLUSION

Economic or financial crime is a serious criminal phenomenon, characteristic of all social systems, which may result in threatening the survival of the state, survival of the government, and numerous politically and socially motivated riots in the state. All of us endure the consequences of this crime, whereas the fruits of this crime are enjoyed by the perpetrators, who take advantage of their knowledge, power, jobs, and functions to gain illegal profit that reaches millions and means that wealth is concentrated and shared by a small number of people. We all contribute to their enrichment by consenting to undocumented labour or to being underpaid, and even going to election polls to vote for people from different political parties who later take advantage of their offices to make fortunes. Such instances of abuse of official positions are distributed across the entire hierarchy, from the lowest-ranking administrative workers to ministers in the government, because all of them know how to secure financial profits by abusing their posts. The people say, the higher the office, the more abuse, and all of it to the detriment of the state.

30 Example of a solved case Yearbook Directorate for Prevention of Money Laundering in the Republic of Macedonia for 2007

31 Sl. Vesnik br. *55/07.*

32 Bošković G. i Marinković D., Metodi finansijske istrage u suzbijanju organizovanog kriminala, NBP, Beograd, 2010, p.

The state should take firm measures in order to resist economic and financial crime, but the problem is that it is civil servants or the state officials who need to comply with legal regulations and take full responsibility in using their powers to discover the perpetrators, resolve crimes and confiscate all the ill-gotten gains. It is easily said, but difficult to implement. It is not a problem to pass laws, but there are serious issues regarding their implementation. Macedonia has accepted almost all the recommendations of the international community in relation to the reform of criminal and procedural legislation. For the past few years, law enforcement agencies have adhered to the provisions of the new laws and although the first results are visible, they are still not satisfying. Good work in the area of criminal investigation should result in providing relevant evidence, the evidence that would secure conviction, but actions should also be taken towards confiscating proceeds from crime, so that criminals should understand that they cannot keep the unlawful gains acquired by abuse of office or powers.

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25. Finansiski istragi i konfiskacija na prihodi steknati od criminal, CARDS, regionalna programa za 2002/2003 p.38

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DIGITAL TRACE IN CRIMINALISTICS

Associate Professor **Jozef Meteňko**, LLD
Academy of the Police Force, Bratislava, Slovak Republic
Martin Meteňko, MA
Hewlett Packard, Slovak Republic
Associate Professor **Jan Hejda**, LLD
Faculty of Management, Prague, Czech Republic

Abstract: The authors try to shortly characterize the content and scope of evidence in connection with crime committed via information and communication technologies. They analyze the possibilities of digital trace, as a new part of criminalistics - forensic traces. Those are typical for crime connected with abuse of information and communication technologies. In the crime activities the authors distinguish a number of classifications of digital traces types. They demonstrate various ground parameters of digital traces. This contribution is the result of the project implementation: Centrum excelentnosti bezpečnostného výskumu kód ITMS: 26240120034 supported by the Research & Development Operational Programme funded by the ERDF, task 3.3.

Keywords: evidence, data, trace, digital trace, types of digital trace, parameters of digital traces.

INTRODUCTION

The development of human society is perhaps the most significantly characterized by the development of new technologies. Automated data and information processing has been developing and it penetrates into all spheres of social life. The same significance is put as well on their transmission, mainly as a tool of directing complex processes for different, particularly technical areas of life. A fast development of information and communication technology has an impact on all spheres of present-day society. An integration of telecommunication and information system enables the speeding and improves the reliability of information processing, storage and transmission. It is the matter regardless the distance and way of communication, thus opening a wide spectrum of possibilities in positive or negative directions. In its positive direction, this development causes and backs up huge economic and social changes in the Slovak Republic[1], too.

Technics and technology are, in general, created to serve people. The development of information and communication technologies (ICT[2]) is very fast. The efficiency of technics and technology is growing, but the areas where they are used are also spreading.

At present time one may not find any branch of human activity where he would not meet the electronics and its application. Close future will be typical for a larger and deeper integration of information and communication technologies with other ordinary household and office equipment (television set, telephone, refrigerator etc.). We will be encircled by technologies on our every step and still to a larger extent[3].

Technology and technics are and will remain the subject and tool of interest, which overcome the boundaries of allowed and belong to the area of their misuse. Certainly, to deal with it, it is not always necessary that it is the matter of crime. On the other hand, new and not used or unknown technologies as a tool or means of activities cause the doubts whether the act is criminal or due to various reasons able to be punishable or still allowed. It is the non-existence of relevant regulations within Criminal Code that causes and may cause doubts about a criminal act, or – namely in the area of protection of social and ethic norms, about a need and possibility to bring other sanctions for such activity. The knowledge of socially unacceptable process related to the misuse of communication and information technologies[4] has been a matter of Criminalistics for a long time. Nevertheless, we still doubt the use of forensic procedures since "Criminalistics does not have its own methods of examination of traces related to CaI technologies."

1 Meteňko, J., et. al.. Criminalistic methods and possibilities to check upon sophisticated crime. Bratislava 2004. Academy of PF in Bratislava. ISBN 80-8054-336-4, EAN 9788080543365, 356 p., p. 7.
2 ICT - Information and Communication Technology
3 Rak, R. Information science in criminalistic and security practice. Prague, Police Presidium CR, 2000 (471),
4 abbreviation CaI is used in the paper

From our standpoint the mentioned "non-existence of criminalistic methods" was connected, in particular, to theoretical and practical defect – failing to elaborate the knowledge of digital trace existence. Even though a notion of digital record or digital trace has been used quite a lot in English speaking countries, the conception of digital trace as an independent type of field trace has not been elaborated so far. Provided we do accept the classification of all criminalistic traces into material, field and memory ones, then in connection to digital traces we may speak about a group of field traces along with traces related to electric charge and various radiation forms.

Due to the newness of the problem, we already tried to characterize digital traces in our monograph[5]. A significant assistance in analyzing digital traces has been given by our Czech colleagues Porada and Rak[6].

Besides the primary content, which is featured via peripheries as text, photography, sound, video etc., data files also often include the so called metadata[7], which define important information about a file, i.e. characterizing it – making it individual among other objects. Then it is possible to define e.g. when a picture was shot, under which luminous conditions, setting and type of a digital camera or even a camera owner is known etc. This information found in PC, which is somehow related to crime, may bring relevant information for criminalistic and forensic examination and by results might be also useful for the police investigation.

CHARACTERISTICS OF DIGITAL TRACES

Technological equipment that gains, elaborates, hands over or stores data, leaves records – from the criminalistics trace viewpoint these are reflections of its activity. Such records are from the criminalistics viewpoint traces. According to classical theory of reflection[8], a man (or another object or subject connected to his activity) activates, modifies etc. software equipment, for instance the setting or regulates electronic technologies another way. These activities and caused changes are reflected in material environment, having a direction inside technology and outside the given technology[9] environment.

In the sense of communication and information crime the problem of equipment dealing with data is much wider than a pure PC work. Some renowned Slovak or Czech authors make use of notion cyber crime, which is applied more intuitively rather than clearly defined. The notion of cyber trace arose in the same period as the notion cyber crime, thus app. in the second half of the last century, in the 80s. It is clear that the notion "cyber" (crime) is not enough today, as other electronic equipment leaves traces as well. Those traces have the same features, general or individual features as cyber trace.

Foreign literature offers several quite similar definitions depicting, for them, ordinary notion digital evidence – in a meaning of digital trace (digital evidence)[10]. It is necessary to underline the fact that by making use of computer, word "evidence" has a significant meaning. For instance, an official document is falsified by a legally bought SW used for scanning and graphic modifications (e.g. Photoshop[11]). The application and computer run on a standard level. The only evidence of the act is a data file with a final falsified result stored in computer along with records proving that the act was elaborated by a certain program, at certain time, by a certain person etc. On the other hand, no function or security damage was caused.

5 Meteňko, J., et.al.. Criminalistic methods and possibilities to check upon sophisticated crime. Bratislava 2004. Academy of PF SR in Bratislava. ISBN 80-8054-336-4, EAN 9788080543365. 356 p.,

6 Colleagues' work in the field of science, Criminalistics and information technologies at PA CR Prague. See e.g.: Rak R., Porada V. Digital trace, *Booklet from scientific conference "Advances in criminalistics",* Police Academy, Prague, 2004.

7 notions such "included" or "dipped data" are used as well

8 Porada, V. Theory of criminalistic traces and identification. Technical and biomechanical aspects. 1987, publishing house Academia, Prague, 328 p., Porada, V. a et.al. Criminalistics, 2001, publishing house Cerm, Prague, 737 p., ISBN 80-7204-194-0

9 compare Rak R., Porada V. Digital trace, *Booklet from scientific conference "Advances in criminalistics",* Police Academy, Prague, 2004.

10 Digital Evidence: Standards and Principles. Report of Scientific Working Group on Digital Evidence (SWGDE) and International Organization on Digital Evidence (IOCE). http://www.fbi.gov/hq/lab/fsc/backissu/april2000/swgde.htm

11 protected term of relevant programs

In English – in relation to forensic practice – "evidence" takes the priority. The word "trace" that would be related to modern technologies does not exist in foreign literature (we may encounter the meaning "potential digital evidence" having a close meaning to "trace"). The reason is simple and pragmatic – foreign theory and practices are strongly oriented to results of criminal procedure, i.e. a trace must be acceptable by court. That is why the perception and use of notions in English make the terms a trace and evidence[12] identical.

Nowadays foreign literatures as well as specialists more frequently make use of the acceptable definition. It was already drafted in 1999 by a working group SWGDE[13] – Scientific Working Group on Digital Evidence[14].

Our concept of digital trace[15]:

Any change in the material environment of hardware memory, or that is captured in such a hardware carrier for data, which has criminalistic relevance (related to criminalistic relevant event), is examined (search, ensure and specific examination) by criminalistics – (forensic) informatics (cyber) methods and based on its examination is possible to identify the relationship of digital traces and objects that created it.

Digital trace is any information having communicative value, stored or transmitted in a digital shape[16].

This definition is open to any digital technology[17]. A digital trace defined in this way covers the filed of computers, computer communication as well as the field of digital transmissions (mobile phones, but also digital TV in future, etc.), video, audio, digital photos, camera systems (CCTV) data, electronic security systems data and any other potential technologies connected to Hi-tech crime. A digital trace must be usable not only for crime control, criminalistics but also for general forensic investigation held by state bodies (civil litigation, trade laws etc.), moreover for the needs of commercial base, needs of independent internal or external audits, etc.

In respect to digital traces, other processes and entities are defined. These are logically linked with digital traces and are of importance for the whole next working process[18] with digital traces:

– digital traces seizing
– data objects
– physical objects
– digital trace originals
– duplicate of digital trace
– copy of digital trace

Digital traces seizing is a process, which starts at the time when information of equipment is found out or found as stored in order to seize and examine them. Seizing must be relevant to the knowledge of criminalistics and other sciences and legal in relation to evidence matters in a given legal system (state or other legally delimited territory). Physical and data objects become evidence provided they are acceptable by law enforcement agencies.

12 Rak R., Porada V. Digital trace, *Booklet from scientific conference "Advances in criminalistics"*, Police Academy, Prague, 2004

13 Digital Evidence: Standards and Principles. Report of Scientific Working Group on Digital Evidence (SWGDE) and International Organization on Digital Evidence (IOCE) http://www.fbi.gov/hq/lab/fsc/backissu/april2000/swgde.htm Whitcomb, C., M., A Historical Perspective of Digital Evidence: A Forensic Scientist's View, International Journal of Digital Evidence, Spring 2002 Volume 1, Issue 1

14 SWGDE was established on the basis of FBI initiative in 1998. The first discussion of the working group was held between Bureau of Alcohol. Tobacco and Firearms (ATF), U. S. Customs, the Drug Enforcement Administration (DEA), FBI, Immigration and Naturalization Service (INS), Internal Revenue (IRS), National Aeronautics and Space Administration (NASA), U. S. Secret Service (USSS) a U.S. Postal Inspection Service. Gradually the project was coordinated by International Organization on Computer Evidence (IOCE) and Interpol.

15 METEŇKO, J., METEŇKO, M., HEJDA J., *Digital trace*. 7th INTERNATIONAL SYMPOSIUM ON FORENSIC SCIENCES Sep 29th - Oct 1st, 2005, Častá - Slovak republic. KEU PZ PPZ. Bratislava 2005. (s.182) ISBN 80-969363-2-8. EAN 9788096936325. s. 55-79.

16 To explain: a digital shape may acquire pretty different content, see: Rak R., Janíček P.: Identification in criminalistic and security practice supported by computer technology, Expertise n. *3/2000*, volume V, p. 30-38, 2000.

17 Rak, R., Porada V., General and specific features of identification and verification of persons and things from the viewpoint of IT use in security practice in relation to criminalistics and forensic sciences, Criminalistics and forensic sciences, Booklet from specialized seminar, *2003*, Academy of PF in Bratislava, p. 25-63, ISBN 80-8054-302-X

18 Else: Rak R., Janíček P.: Identification in criminalistic and security practice supported by computer technology, Expertise n. *3/2000*, volume V, p. 30-38, 2000

Data objects are non-material objects or information having trustworthy communicative value, while being associated with touchable elements of material substance. A data object may be of different formats, but they can never change the original information. Data objects are e.g. represented by databases, address lists, files, content of virtual memories, digital video or audio records and many others.

Physical objects (touchable, directly registered by human senses) are elements – more frequently media where data objects are stored and via which these are transmitted. In fact we speak about hard discs, various memory media (floppies, CD and DVD, memory cards, data tapes etc.). In a broader sense they include the whole equipment (e.g. computers, printers, net components etc.) containing, besides digital traces, other information as well. Important for criminalistics are particularly serial numbers, dactyloscopic, mechanic or biological traces and others proving a logical link between a physical equipment (owner, user, time…) and its user/offender and a criminal offence or other activity being these the subjects of examination / investigation. Frequently, physical objects are subjects of interest of a generally wider criminalistics examination, rather than interests of a digital trace examination. All ordinary methods of criminalistics examination are used as needed.

Original of a digital trace is a physical or data object seized for the need of an expert or forensic examination. Originals are the basic evidence. For working purposes, users (offenders) or investigators make their duplicates or copies of digital traces. This process is clear and no information change occurs. Moreover, the process is reversible, repeatable with the same results provided basic conditions are met. A gained or made material intended for the next examination has the same information value as the original and is available to users and independent experts. In this way inalterability of originals acted as evidence is guaranteed. Since reproduction of all data objects is present when making duplicates, logical and physical links maintain. A duplicate is comfortable, secure and fully-fledged to work with. They are made mostly for the needs of the repeated examination. It is vitally necessary towards independent experts in those cases when a physical object itself (company PC) cannot be seized for the needs of law enforcement agencies due to various reasons. PC practice makes standard use of the so-called disc "image" that is a spitting duplicate of its content, something like a mirror[19] of the original content stored in digital shape.

The copy of a digital trace is an exact reproduction of information from an original physical object onto others, physically independent data medium. When making a copy we create data objects with the same information but using a physical object, which can be of a different type. It is not inevitable to reproduce all data objects of the original physical object, but just some of them. In this respect, not all functional and logical links with other data objects have to be kept. We make copies if the investigation purpose is present, e.g. due to size. Copies contain only a part of data objects of the original physical object. Information value of every copied object does not change from its original though.

FORENSIC DIGITAL TRACES AND DIGITAL TRACES FOR DIFFERENT PURPOSES

Human activity, the equipment used and objective circumstances of these activities can be various. Digital traces can be a result of a whole range of the mentioned factors. While studying the digital traces in the first phase it is not always clear whether the digital traces are related to criminal activities, whether they can be used for forensic research of a more general character, or whether these are ordinary traces that as a legitimate activity of the offender will not be subject to an investigation. Everything depends on what we investigate, what we are looking for. In any case, we have to examine every relevant trace, to confirm or to disprove the researched hypotheses or investigation drafts.

Three basic categories of traces in the material environment and in the consciousness of people can be categorized according to their use for various types of a research and investigation[20]:

19 Even though a mirror is in fact a reverse picture and in this case we do not speak about a reverse picture. Notion mirror is, however, used to express this purpose

20 METEŇKO, J., METEŇKO, M., HEJDA J., *Digital trace*. 7th INTERNATIONAL SYMPOSIUM ON FORENSIC SCIENCES Sep 29th - Oct 1st, 2005, Častá - Slovak republic. KEU PZ PPZ. Bratislava 2005. (s.182) ISBN 80-969363-2-8. EAN 9788096936325. s. 55-79.

- ***Criminalistics traces***. They relate to the investigation of criminal offences and misdemeanours specified in the law. For the purposes of the criminalistics (and forensic) practice a high quality and objectivity of the collected traces and the process of collecting and research, the criminalistics traces can be understood as a subject of forensic sciences.
- ***Forensic traces***. Generally, these are any traces used for the needs of a forensic investigation including the investigation by the law enforcement bodies. In contrast to the classical criminal investigation, an investigation by forensic audit in civilian or commercial form also belongs here. The output of the investigation in its quality and formal procedure is made to meet the requirements of the judicial bodies. In practice we come across cases where a crime was reported based on internal audit or work of an independent (non-state) expert institution. The evidence (traces) collected by the audit bodies should be submitted to the state law enforcement bodies in sufficient quality and standard required. Collecting originals of some digital traces is an irreproducible process. In such a case other bodies will not be able to collect traces that have already been collected (not at all or not in the necessary quality).
- ***Traces for other purposes***. This type of traces reflects all other activities of objects and subjects that do not fall within the above two categories. This is a result of the legitimate activities of the user or of the objective effect of the outside powers and energies that have no logical connection to forensic traces, and that can be used in e.g. various analyses focused on improving the performance or functioning of the equipment, economy of the operation, availability of services, degree of safety, etc. The quality and form of processing the traces in such a case is focused on the output for which the traces are to be used. Often, these are internal materials of the internal control of observing the institutional rules etc. in its character and quality; this type of traces does not have to be (but can be) acceptable by the judicial bodies.

In the available literature we can find a few basic aspects of categorization of traces. Most frequently we distinguish traces based on:

- Material substance (material or memory traces),
- Content of information about the basic structure of the effecting objects (internal and external traces structure of the effecting objects),
- Origin of the predominant characteristics of the reflected object or subject (material trace of biological, chemical or physical nature),
- Research subject of the information content of the trace (blood traces, dactyloscopic traces, footprint traces, digital traces, defectoscopic traces etc.),
- Object, weight, measures or visibility of the trace (macrotrace and microtrace),
- Way of interaction at the formation of the trace (traces of layering or delayering – prints, dynamic and static traces, surface or volume traces, traces created by losing energy or substance etc.)

Every trace can be categorized within each of the above six categories. In other words – the trace is either material or memory; it reflects information on the basic internal or external structure of the effecting object. If it is of material nature then it originated in a biological, chemical or physical way (or their combination); in every trace we can study its information content; each trace is either a macrotrace or a microstrace (and based on that we select the suitable procedures, means and tools of their processing); and every trace originated in a specific mutual interaction of objects.

Categorization of digital traces

According to its definition, a digital trace is any piece of information with an information value relevant to an investigation of a particular act or activity stored or transmitted in digital form. The information in its essence is intangible. It is created, transmitted, and saved and stored in a digital form, in the form of electric, magnetic, optic or any similar display of the field. At the moment of its saving it becomes tangible in the environment of the memory medium and its record has the nature of a field. To be able to analyze the information, first we have to record it technologically and then save it again temporarily or permanently on a memory medium. **The digital trace is of tangible nature.**

In general, the characteristics of the internal structure of the effecting, reflecting object are transmitted to the reflected object. Thus, the digital trace is a trace of the internal structure of the reflected object.

The digital trace in its primary form, the "form" in which it is stored or transmitted, is a **microtrace.** To make it visible, technological devices, or a user, system and most of all, forensic software is needed. Some of the simplest, user-friendly technologies are monitors and displays showing digital information in an acceptable (perceivable) format (font, images, sound, video sequences, vibrations.). These "communication peripheries" also enable the transfer of digital data into the native memory medium suitable for the needs of the users, e.g. copy paper, classic photography. The digital information (trace) transformed this way can be perceived by our senses, especially sight, hearing or touch (Braille). User software (text, graphic editors, and table processors) can display common traces, like system software, which is very strange for the users from the aspect of their perception and the possibilities of its use. Moreover, the specialized forensic software can read information from deleted files, crack passwords protecting the access to the coded information, etc.

The digital trace emerges especially by the effect of physical forces and energies. A digital trace can be categorized among physical traces of the technological field as a reflection of the direct or indirect effect of artificial artefacts of external physical forces. The direct effect of the artificial artefacts means a direct automatic, incidental or pre-programmed effect of one technological element (artefact) on another one. The indirect effect means human effect on an artefact (software or technical equipment or technology). Theoretically and practically (limited by the research and development work places), the technology of saving or transmitting digital traces can also be based on other physical principles – they can be chemical or even biological. Today, technologies and trends of transmission, processing and saving digital information are typical with the effort for maximum miniaturization of devices and the highest possible density of the stored information (the highest volume of data at the smallest physical volume of the memory medium). From this aspect, the physical principles seem exhausted and the attention of the scientists turn to technologies close to biological or biochemical ways of processing information, i.e. processes similar to or actually occurring in the human brain. Therefore, we cannot exclude any nature-like characteristics of saving and processing information in the future.

Sources of digital traces

It is obvious that there is a great number of sources of digital traces. Their number and variety of types increase every single day. Therefore, it is useful to divide the source data into several typical groups where the digital traces are of similar nature and therefore the way of searching for them, their processing and further use is similar. The typical group has specific requirements on technical equipment and the knowledge of specifically focused experts to collect digital traces.[21]

In foreign literature we often come across the logical categorization as follows:

- **Open computer systems.** The category includes everything that people understand under the term computer and its immediate peripheries – PC (desktops), laptops, hard discs, keyboards, monitors, servers etc. Their disc capacity is always limited (but devices with ever larger disc space are being produced), they contain a huge amount of information and digital traces. An ordinary data file – e.g. a Word document – can, in its content and system information (the so called metadata[22]), serve as key evidence and can influence and speed up the investigation significantly.
- **Communication systems**. Traditionally, this group includes classical landline telephones, wireless telecommunication systems, computer networks and the Internet. All of these can provide digital traces. For example, e-mail is transmitted all around the world via the Internet services. The sending time or the sender, the content of the e-mail, the log files of post servers that transmitted the e-mail – all of these are very important digital traces.

21 On the situation in the Slovak Republic see next chapter.

22 Metadata are information about information, information describing other information. In our case it is the time and date of the creation of a file, the date of its modification, file owner, information on the computer where the file was created, size of the file, word count, notes on editing – author of changes etc.

- **Devices with integrated computer chip.** Mobile phones, personal digital assistants (PDA), chip credit cards, and many other devices with a computer chip are also a very valuable source of data suitable for investigation. Navigation technologies based on GPS can identify the position of a vehicle or an individual; the black box on a plane remembers all the information about the flight, just like the diagnostic modules of computer controlling units of automobile engines store the basic operation and service data (speed, brake activity, travelled kilometres, diagnostics of defects, types of services etc.). The next group of devices equipped with integrated chips and intended for common use in households contains important information and further sources of traces. These devices, moreover, can normally, even wirelessly, communicate with the surrounding world, other devices and environments, including the Internet.

Even despite the enormous development of digital technologies, there are still very few experts who can effectively read the digital traces and make relevant conclusions usable by the law enforcement agencies or others. Often, we do not have sufficient technologies, knowledge and law to work with digital traces. Then we often fail to notice them, underestimate them, we collect them incorrectly or analyze them ineffectively.[23]

Digital traces and their specific features

Digital traces, as well as any other type of forensic traces, have their general and individual typological features and characteristics which, from the aspect of the law enforcement bodies, have typically positive or negative consequences. Then we need to bear these aspects in mind all the time and at all stages of our work with the digital traces.

Digital traces are formed by human action – user / offender – on the application or system software, functionality of the digital equipment or automatic effect of one device on the other.

Therefore, digital traces reflect the specific high-tech features to an unusually high extent and the rich colour of the human mind of their users.

Specific features of digital traces:

- Substance of digital traces as traces of a field,
- Latent nature of digital traces,
- Tracking digital traces in time,
- High density of content of digital traces,
- Very low life span of digital traces,
- Storage and quality of digital traces is influenced by a number of subjective factors,
- Great volume of data in digital traces,
- Data density of digital traces decreases with the development of new technologies,
- Extreme dynamism of the environment of the digital traces,
- Heterogeneity and complexity of the environment of digital traces,
- Great geographical extent of the environment of digital traces,
- High degree of data protection hinders the work with digital traces,
- Digital traces are automatically identifiable and processable by specialized means,
- High degree of obliteration of digital traces by qualified offenders,
- Restorability of obliterated digital traces [24],
- Genuineness of digital traces,
- Contemporary low degree of judicial acceptation of digital traces in legal practice[25].

23 METEŇKO, J., METEŇKO, M., HEJDA J., *Digital trace*. 7th INTERNATIONAL SYMPOSIUM ON FORENSIC SCIENCES Sep 29th - Oct 1st, 2005, Častá - Slovak republic. KEU PZ PPZ. Bratislava 2005. (s.182) ISBN 80-969363-2-8. EAN 9788096936325. s. 55-79.

24 Partial or complete

25 Connected with the possibility of identifying the person connected with a trace

Digital traces as field traces

Although data and information are immaterial, material medium, with various technological equipment, format, data structure, reliability and lifespan etc., is needed in order to store them. The medium contains digital traces in the form of a field and it is a physical component of means of evidence. In judicial practice they can be required as physical part of evidence, from which it is possible to acquire the same information again and at any time in order to determine an expert's finding. Technologies for digital data processing for personal use (PC, notebooks, smart cards, tapes, floppy disks, CDs and DVDs, mobile phones, personal organizers – PDA etc.) are perceived in this way. If they are found on the crime scene, they are secured and sent to a laboratory for the expert examination.

Latency of digital traces

Digital traces are invisible. Latency is multiple. The records, which are processed or stored to the data medium, are invisible to the naked eye (with the exception of views of monitor screens, print screens, photographs or video recordings of screens and printed documents). The second level of invisibility is due to the fact that some of the records, files are invisible to the ordinary computer and digital technology users because there is a hidden attribute set, special settings of the user's rights or special application or system means. Another category of latency of digital traces is comprised by deleted recordings, reformatted disks or data destroyed or changed by other means. Special software is needed in case of restoring them. In the same way we approach encrypted data, which although are visible to the user, they are without informative context.

Time traceability of digital traces

In comparison to other traces known in criminalistics or forensic practice in some cases the digital traces can precisely determine time span of activities.

It depends on the criminologist's knowledge, which enables him to fully use information and archival sources of application program equipment. The knowledge of a user/perpetrator is significant as well. If the user does not have particular knowledge, then digital traces of great importance can be found in the document. A good example is utilization of functionality revision of Word. If the user is unaware of all the implications, he can unintentionally provide commercial competitor with restricted and internal information, which in an extreme case can end up by filing a complaint (slander, information leak, information abuse in commerce, etc). If all versions of working documents are stored, internal audit can analyse the procedure of document processing in a similar way. This is determined by fact that the computers and other digital devices (camcorders, cameras etc.) have digital clock, which determines the activities of system SW or other activities of digital devices such as a time lock.

It is common that accurate time setting by a larger system is executed by automatic synchronization by the Internet services and specialized transmitter so that the clock indication is absolutely credible. Then it is possible to determine when the user logged in/logged out, created, deleted, ordered services, sent and received an e-mail read it and replayed to it, etc. If there are digital traces with a time lock, they significantly document the process of particular activities in time.

Content of digital traces

In specific cases digital traces have high information value of interest and activities of the person, the computer user or the perpetrator of the crime. From this point of view they are very important for criminalistics and other forensic sciences and from the point of theory of the traces they are unique in comparison to other types of the traces. In many cases it is possible to study not only particular activities of the computer users (all the activities he has done), but also what information he was interested in, what information he acquired, processed, stored or handed in to the others. Due to these facts it is possible to determine some fields of the interest of the perpetrator, his motivation and to create psychological profile.

Very low lifespan of digital traces

From the criminalistics or forensic point view of digital traces digital records are recorded to memory medium. They can be intentionally deleted by the user or systematically and automatically (without one's involvement) rewritten by other records. Read-only optical medium, intended for archival purposes, is exception. They are very expensive and not very commonly used in the practice. The mediums are intended for recording without possibility of deleting them with lifespan of 50-years and over. It is possible to restore deleted recordings with the help of special SW, but the restoring must be done very quickly before the memory medium is rewritten by the system means. The promptness of the restoration and fixation of particular data, capacity of the memory medium and intensity of the user's activities when creating data files, play decisive role. Besides, data can be damaged by computer viruses or hidden programmes (e.g. Trojan horse).

Storing and quality of digital traces is influenced by subjective factors

From the point of safety, storing and quality of digital traces are directly proportional to international, national or institutional legislation, experience of system administration and they depend on institutional culture. Regular monitoring and audit of key transactions, providing storage backup and data archiving from important data sources to a special medium and their long-term storage, play primary role.

Large data capacity of digital traces

Strong centralization, arising from operational and economic reasons, is typical for computer and communication means. In our country data capacity is around tens TB in middle size companies. Only a small part has character of a digital trace.

Data density of digital traces, among other data with development of new technologies, constantly decreases

The digital trace itself is not limited by physical capacity. New technologies for data comprising are developed. It means that larger data capacity is saved to the same capacity of data medium.

Extreme dynamics of environment of digital traces

This particularity is typical mainly for common network environment in big institutions when data funds are distributed in real time. Comprehensive company applications are strongly centralized and dynamic with high requirements for application accessibility from the point of fulfilling information needs of the institution, economic and operational characteristics. Applications are included in critical company applications. It means that interruption of application function only for one minute (mainly in industry, transport, telecommunication, financial institutions etc.) can have disastrous existential consequences.

Heterogeneity and complexity of the environment of digital traces

Various operational systems, databases, application software and its versions, data interface among applications, data formats, transferable proceedings, proceedings of operational records, logo etc. are commonly and concurrently used in the same organizations. Concerning information and communication technologies know-how of each field is covered by all sorts of experts. The intricacy of an investigation is determined by the complexity of the issue, which does not have to be apprehended in a conceptual way. The quality and promptness of secured digital traces are a primary cause of low criminal detection in connection with information and communication technologies.

Large geographic capacity of environment with geographic traces

Computers are connected together around the whole world with the help of private computer network and the Internet, so distribution of distant data and application is possible. A highly experienced perpetrator, who wants to leave minimum traces behind or to make an investigation difficult,

usually never uses the particular computer directly, but with the help of other computers, which are theoretically and practically in absolutely different country or continent. Although the computer network does not recognize geographic boundaries, an investigation is always based on present laws of the country.

A crime scene, involving information and communication technologies, is in some cases impossible to restrict geographically to a particular territory, although the digital traces are limited by very small technological space - chip size, data disk etc. The crime scene can have virtual character due to the fact that some types of the applications use distributed processing concurrently on several distant servers.

High level of data protection makes the work with the digital traces difficult or impossible

Due to the safety reasons, there are a lot of data transitions and nodal points, mainly in file systems and databases, which are cryptographically protected. If we are not familiar with the particular algorithm or technological means, the data in digital form do not have value and information for the investigation and so it is not possible to identify them as digital traces and conduct any further investigation. To amateurs the encrypted file only contains mixture of unfamiliar data. We are able to find and read their content only after decoding them.

A digital trace is automatically identifiable and processable by specialized devices

Since digital traces are generated as a final result by a certain technology, it is feasible to automatically assess the traces by technologies compatible with the former ones supposing necessary conditions are preserved.

The part of digital traces is the output of the user or the system software. The software are programmed by set systems and algorithms in a way that the outputs related to these programs have a very specific logic and structure, the data format; which is possible to estimate to a certain degree of accuracy.

This aspect is exploited in particular cases by making use of specialized software, which manages to automatically assess digital traces made by algorithm devices, and identifies these traces with pinpoint accuracy.

One example is violating copyright laws by installing illegal software into corporate computers. Each installation of legal or illegal software leaves behind some information on the installed product in the system registers of OS Windows.

From the viewpoint of the criminalistics and forensic practice, this information is equivalent to digital traces.

If we have general corporate database of officially purchased software products at our disposal and the computers are connected to the corporate network, it is possible to search/scan the system registers of all computers available and specialized user software and to compare the result with the given database.

The output is in fact the list of all installations illegally carried out in every PC, whereas the price of licenses not carried out can also be automatically ascertained.

High level of digital traces obliteration by qualified offenders

As practice shows, highly competent offenders whose professional education is associated with the field of information and communication technologies cause the largest traces.

The offenders are extremely familiar with the keystone of crucial technologies functioning as the ways of the technologies and data protection they have to and are able to avoid, are of great interest to them. At the same time, they are acquainted with the habits and behavior of employees and the management of a particular organization.

The commonest tactics of hackers hacking computers is gaining unauthorized access to the administrator´s passwords which enables them to perform unlimited activities within the operation systems, including deleting operating and monitoring records/logos of user, distribution and system activities.

Thus, a hacker is proficient in gaining access rights that are a property of another, moreover he/she is able to make use of someone else´s user account and act under a new identity.

Supposing the identity is revealed, the attention is directed towards the innocent victim.

Damaged digital traces restoration

Under specific conditions, deliberately deleted or otherwise damaged digital traces can be restored.

As a rule, this is not true of other criminalistics relevant traces. A footprint once deleted cannot be restored.

The digital traces restoration is conditioned by the keystone of operation systems functioning related to the information and communication technologies and techniques which may differ either slightly or substantially among each other, according to the same mechanisms of functioning.

If we delete a file in Windows or in the e-mail, it is possible to restore it in a user´s sense by retrieving it from "the thrash" or "deleted items".

Even if a user does away with these records in a file system, i.e. in its fragments on purpose, the information remains retained for a certain period of time and it may be restored, even completely by special software or by unique procedures.

Digital traces originality

It is very easy to copy the data records, files and their carriers and to generate their duplicates.

During the files and data copying process, no data loss or distortion is caused. This results from the keystone of digital technologies, respectively from the quality as a technological requirement imminent to digital technologies.

That is why providing full proof of originality, i.e. discerning between the original and the copy becomes so intricate, as for instance when submitting proofs at trial proceeding.

The above-mentioned problem, explained and perceived in a wrong way may, in extreme cases, result in mistrust towards digital and electronic traces as such.

In particular cases, digital traces can be easily modified without the process of modification leaving any visible tracks of its activity behind.

Digital traces, either the copies or the original, may be damaged or destroyed, deliberately or randomly, irrespective of whether they are in memory medium stand still or are just being distributed / transmitted over the net.

Digital traces may also be easily modified or destroyed right in the process of collecting or safeguarding it for the purposes of an examination and investigation.

Unless the standard procedures of digital traces safeguarding along with the thorough and overall documentation are observed, it is theoretically possible to handle even safeguarded digital traces.

Naturally, these shortcomings need to be checked and eliminated in a methodical and organized manner so as to make the digital traces acceptable in the courtroom.

However, changes may be achieved in positive direction, too.

An example is a digital photography of lower quality, caused by a false exposure; a system-defective, blurred shot, balanced in an incorrectly colored way.

At present, specialized software is able to remove the shortcomings to the extent that it is feasible to recognize the face of a person or the license plate of a car.

The flow of the process is exact and repeatable at any time with the same effect.

Thus, appropriate software may change a primary/original trace which lacks the required information into a high-level quality digital trace which clarifies the investigation.

Low judicial acceptance of digital traces by legal practice

Digital records can catch hold of a picture, sound, different operating values and conditions, the user´s activities or the activities associated with automated processes and programs, what is more, they record the values given by exact measurements, data transmission and many more.

Unlike subjective working of human memory, we are able to reproduce the above-mentioned records over and over again in the same quality and in front of no matter how large the group of impartial observers and experts.

The problematic issue related to digital traces is theoretical and in some cases also practical possibility of falsification and of challenging the legal quality of traces.

However, this possibility occurs within all types of traces processed in the criminalistics and forensic way.

CONCLUSION

In practice we are exposed to prejudices of individuals made on grounds of unfamiliarity with the subject matter rather than to relevant references to actual weak spots of communication and information categories.

Much information and communication information along with the corresponding equipment is classified and certificated in the safety manner at such a level that is simply incomparable with any other technologies.

Communication and information technologies contain a satisfactory quantity of the record information mechanisms, so on condition the examination and investigation procedures, objectively defined are observed along with the appropriate handling with the collected digital traces, these technologies are reliable and unimpeachable evidence of the activities which took place at the crime scene or by means of this technology.

The main problem is the identification of the person responsible for a particular digital trace.

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APPLICATION OF CRIME PREVENTION METHOD THROUGH ENVIRONMETAL DESIGN

Associate Professor **Marina Malish Sazdovska**, PhD
Faculty of Security, Skopje, Republic of Macedonia

Abstract: Crime in the world today is still a phenomenon that seriously impairs the security of its citizens, the state and society to the full. Ways to fight against the perpetrators and the application of different methodology to combat certain forms of crime is a routine in the work of the security services and authorities. Besides new methods, technologies and measures that are used to provide application of the latest and sophisticated means, the crime rate is enviable. So, despite measures to detect offenders and proving their criminal behavior a serious approach to prevention is needed, in order to reduce the rate of crime. Thus, new methods, their application, education of personnel for implementation of new methods are a major goal of the competent authorities and bodies, if we want efficient operation and success in combating crime. For that purpose, we need to support new prevention methods and their implementation in practice as the CPTED method. This new method of crime prevention is basically designing of the environment. Thus through the urban planning of a particular environment, conditions for reducing crime in the detachment area are created. The application of this method requires an active involvement of all competent entities such as the police, local government, investors, architects, NGOs and others.

Keywords: prevention, crime, design, environment.

INTRODUCTION - PREVENTION PROGRAMS

Crime prevention is based on different methods that are applied in order to suppress or reduce crime. It uses a variety of methods including:

– Social development programs. These are programs that need to reduce the number of motivated offenders by changing the social conditions that contribute to the occurrence of crime. For example: parenting skills, educational programs for young people, etc.
– Situational prevention. This approach turns the attention to the issue of criminal events. It studies the time, social conditions, building facilities, etc. It should be insisted to change the situation opportunities in a way that will deter or prevent potential offenders to do a criminal activity.

Situational crime prevention focuses on preventing the opportunity for crime to occur by addressing:

– Factors within a given location that create crime "hotspot";
– Characteristics that may make some people more vulnerable to victimization than others.

Situational crime prevention measures concentrate on preventing crime from occurring and victimization[1].

Situational crime prevention measures include:

– the management, design and modification of the environment (including open space and built environment) that will impact on a potential offender's decision to commit a crime;
– the implementation of the above to make a crime more difficult to commit, increase the risk of being caught, decrease the reward associated with committing the crime and decrease the excuse for an offender's behavior in that location.
– increasing the awareness of a potential victim about their vulnerability to crime, and educating them about reducing their chances of victimization.[2]

1 http://www.crimeprevention.nsw.gov.au/agdbasev7wr/_assets/cpd/m660001l2/situationaldevelopmentfactsheet_nov2011.pdf
2 http://www.crimeprevention.nsw.gov.au/agdbasev7wr/_assets/cpd/m660001l2/situationaldevelopmentfactsheet_nov2011.pdf

According to the situation prevention approach, it is more useful to recognize and prevent situations that affect the performance of the offense, rather than to deal with the event as a product of personality features and other personal characteristics of the offender.[3]

There are five main categories of crime prevention strategies:

- Social Development Programs
  - Such programs seek to reduce the number of motivated offenders by changing the social conditions that contribute to crime.
- Situational Prevention
  - This approach turns our attention to the criminal event.
- Community Crime Prevention Programs
  - This category includes programs such as Neighborhood Watch and Citizens on Patrol where community members actively become part of the crime prevention effort.
- Legislative/Administrative Programs
  - Changes in legislation and businesses practices may help prevent crime. For example, zoning by-laws can keep undesirable businesses that may create problems away from residential neighborhoods.
- Police Programs
  - The police can work proactively to prevent crime. Visible police patrols in high crime areas, mandatory arrests of some types of domestic violence offenders, and curfew checks for young auto theft offenders are methods that have demonstrated some success in reducing crime.[4]

CPTED (SEP-TED) – CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

CPTED was originally coined and formulated by criminologist C. Ray Jeffery. A more limited approach, termed defensible space, was developed concurrently by architect Oscar Newman. Both men built on the previous work of Elizabeth Wood, Jane Jacobs and Schlomo Angel. Jeffery's book, "Crime Prevention through Environmental Design" came out in 1971, but his work was ignored throughout the 1970s. Newman's book, "Defensible Space: - Crime Prevention through Urban Design" came out in 1972. His principles were widely adopted but with mixed success. The defensible space approach was subsequently revised with additional built environment approaches supported by CPTED. Newman represented this as CPTED and credited Jeffery as the originator of the CPTED term. Newman's CPTED-improved defensible space approach enjoyed broader success and resulted in a reexamination of Jeffery's work. Jeffery continued to expand the multi-disciplinary aspects of the approach, advances which he published, with the last one published in 1990. The Jeffery CPTED model is more comprehensive than the Newman CPTED model, which limits itself to the built environment. Later models of CPTED were developed based on the Newman Model, with Crowe's being the most popular. As of 2004, CPTED is popularly understood to refer strictly to the Newman/Crowe type models, with the Jeffery model treated more as multi-disciplinary approach to crime prevention which incorporates biology and psychology, a situation accepted even by Jeffery himself.[5] A revision of CPTED, initiated in 1997, termed 2nd Generation CPTED, adapts CPTED to offender individuality, further indication that Jeffery's work is not popularly considered to be already a part of CPTED.[6]

CPTED method presents crime prevention through environmental design.[7] Specifically CPTED can be defined as a multi-disciplinary approach of deterring criminal behavior

3 Borovec K, Balgac I, Karlovic R. „Situaciski pristup prevenciji kriminaliteta-od teorije do prakse utemeljene na dokazima„ MUP Hrvatska, 2011, str. 20

4 Linden R. Situational Crime Prevention: Its Role in Comprehensive Prevention Initiative, Revue de l'IPC Revue Volume 1: pages 139–159 March/mars 2007

5 http://en.wikipedia.org/wiki/Crime_prevention_through_environmental_design

6 ibid

7 The first study of the relation between the urban environment and safety was written by anthropologist Jane Jacobs in her book "The Death and Life of Great American Cities" 1961. Jane's theory can be summarized in two key

through environmental design. CPTED strategies rely upon the ability to influence the decisions of the perpetrators that preceded the crime activities through influence over the structures, social and administrative environment. It is pronounced /sep-ted/, and is also known as Designing out Crime.[8]

There is a connection between the behavior of people and the environment where they live, work, etc.[9] This interaction is in the interest of theoreticians of crime, criminological science, in order to offer the practitioners developed and efficient methods of crime prevention which are going to be successful and effective. One of the methods is CPTED method which prevents the crime through environmental design. Certain local problem where there is outstanding crime rate can solve and prevent criminal behavior by adopting urban solutions. Thus for local problems local solutions are proposed in which the local authorities, police, urban planners or architects and other authorities and institutions are included.

There were a number of considerations in this direction in the past, but it can be concluded that the basis was set with the idea of Oscar Newman about the CPTED Theory, according to whom, "adequate design and effective use in the construction of the environment, may lead to a reduction of fear and occurrence of crime, and improvement of the quality of life". According to this author[10], the guidelines for planning and design are based on the following main assumptions: people defend a territory that they feel belongs to them (concept of territoriality) and the planning and designing of urban spaces can reduce the crime in the area.[11] According to certain authors, the security is directly related to urban planning and the "role of architects and urban planners is to create an artificial environment that will provide a safe place to live."[12]

The application of this method allows a natural access control, natural surveillance, territorial reinforcement, and environmental quality.[13]

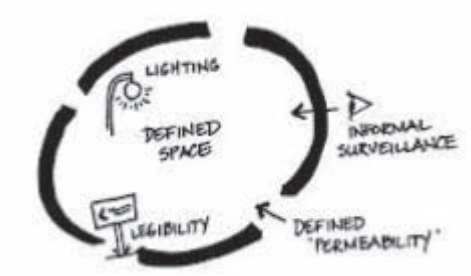

Figure 1: Defined space

In order to successfully apply this method cooperation between architects, urban planners, local authorities and investors is necessary.

Application of this method requires the existence of entities that will be able to identify criminogenic factors and "to read" the environment.

concepts: 1) "the eye of the street" (presence of activity, buildings open towards the street, windows overlooking the street) is a primary safety factor; 2) urban security depends on the territorial identity: individuals defend and respect the territory that belongs to them.

8 http://www.cpted.net/default.html, accessed on 11.10.2012

9 "First, people are constructing houses, then houses are constructing people." (Albert Schweitzer) Windt, Szandra Ph.D. "The role of human factor and community in reducing crime and creating a safer environment" CEPOL course 45/2012, Crime Prevention through Environmental Design, 12-15 June, 2012

10 Oscar Newman, founder of CPTED method, professor of architecture at the Columbia University, author of "Defensible Space, crime prevention through urban design," 1972.

11 "Planning urban design and management for crime prevention" - handbook. This HANDBOOK on Crime Prevention Guidelines for urban planning and design is one of the outputs of the Action SAFEPOLIS with funding from the European Commission - Directorate-General Justice, Freedom and Security (Contract JLS/2006/AGIS/208).

12 Julian Keppl "Education in Architecture and Urban Design and CPTED", CEPOL course 45/2012, Crime Prevention through Environmental Design, 12-15 June, 2012

13 Karsten Nielsen, The Danish Crime Prevention Council, "From Evidence to Action – CPTE under implementation in Denmark", CEPOL course 45/2012, Crime Prevention through Environmental Design, 12-15 June, 2012

Theoreticians believe that security is related to urban planning, and applying this method creates a safe environment. Thus there is a possibility for local governments and authorities to implement measures in the areas of criminogenic hot spots in order to prevent crime and other negative behaviors.[14]

In the majority of literature a treatment of following levels is suggested: areas, neighborhoods, public space, buildings, building of elements (doors, windows, etc.).[15]

These methods can be used to control crime opportunities, but they can unintentionally create esthetically desolate and alienating places. They can exclude, rather than include, diverse groups of people. They may not enhance positive social interactions simply because the environment is modified. Without working together for a common purpose, people may not take "ownership" of that territory. Criminals may feel comfortable to exploit these areas. 1st Generation CPTED Course Contains:

– Controlling access into areas;
– Improving natural surveillance;
– Enhancing the control people have over places;
– Improving the neighborhood "milieu" (maintenance and management);
– Strategies for ownership (designing safe places);
– Urban Circulation (e.g. movement predictors);[16]

Second Generation strategies include the 4 C's:

– Cohesion;
– Connectivity;
– Capacity: Neighborhood Threshold and Tipping Points;
– Community Culture.[17]

According to some authors this method is a part of the work of community police - community policing. Namely, applying this method the police act preventively and proactively.

Source: Moffat (1983, p. 23)

Figure 2: CPTED method

14 In the United Kingdom, a program targeting repeat residential burglaries was implemented in Kirkholt, one of the highest crime estates in Britain. Under the program, the physical condition of the area was improved by installing locks and new lighting in vulnerable points of entry. Also, small groups of neighbours were encouraged to create "cocoons" where they would look out for each other's property. Compared to the surrounding area, Kirkholt experienced a 58% drop in residential burglaries in one year, and a total reduction of 75% over four years. http://www.ccsd.ca/cpsd/ccsd/sit.htm

15 Paul van Soomeren, Tobias Woldendorp "CPTED in the Netherlands" 1997, Originally this paper was published in: Security Journal 7 (1996), p. 185-195 (Elsevier Science Ireland LTD)

16 http://www.alternation.ca/crime_prevention.html

17 *ibid*

APPLYIN CPTED METHOD - PRACTICAL EXPERIENCES APPLICATION IN DENMARK

The relationship between criminal or anti-social behaviour and the quality of the physical environment is now proven and well-known among CPTED practitioners. A well maintained managed and clean public area with fine architecture and signals of civic pride reduces opportunities and inclination of people to act in a criminal or anti social way. The broken windows theory underpins the argument for investment in quality public realm improvements and maintenance of our streets.[18]

Two residential areas were fully regulated according to CPTED-method and the results gathered are: burglaries are reduced 4 to 5 times compared to other residential areas, due to the semi-public and semi-private areas; thefts from vehicles and vandalism were reduced by 20-40%; violence decreased by 20-40%; there was much improved sense of security for citizens, etc.

In connection with the high level of burglaries in the country a meeting was held with the Minister of Justice in 2010. It was agreed to incorporate this method in the planning of the local government, starting in 3-5 local governments, then depending on further experience to expand into the rest of the country. The Minister liked to change also the Urban plan (as in Norway), but the Central Urban Bureau didn't recommend it. This urban planning project for a more secure environment is in progress. The goal is to use urban planning in order to reduce crime and increase the safety and to do that by combining knowledge about crime prevention and promotion of safety through good urban practice locally. For this purpose, representatives are ascertained and involved in the project and pilot areas.

Crime Prevention Council takes active participation in the application of this method in Denmark which provides advice for all aspects of crime prevention in urban areas where there are residential complexes. Users of the buildings are covered, and also professional organizations dealing with building are included. With the application of this method not only that the crime is prevented but the safety of the residents of the housing complexes is increased.[19]

Crime prevention is not just a matter of reducing the level of crime but also of promoting the security of the residents in housing complexes. The first lines drawn on a plan of a housing complex lay the foundations for the welfare and security of its future residents. Therefore, crime prevention start already at the "bare field" stage and thought must be given to it throughout the whole building project just as is the case for the foundations, the building components, etc.[20]

Some research has shown that vandalism is generally the work of the residents on a housing estate and not of some outsiders. Furthermore, it seems that for the existing housing estates, relatively simple measures are able to limit vandalism and similar crime by up to 40%. Active efforts by housing sector staff together with residents, and general supervision on the area, contribute to keeping crime at a low level on a housing estate.

The Crime Prevention Council Denmark not a single institution which takes action on this field, Danish Standards Association has issued three publications in this field. These deal with the prevention of burglary, violence and vandalism, and crime on the building site, and they have guidelines about crime prevention with this method.

Key concepts in housing design form crime prevention are:

– Openness in information and communication;
– Good visibility;
– Obvious spatial affiliations;
– Area-awareness;
– Robust, stable building components;
– A sense of community;
– Responsibility;
– Security;
– Welfare;
– Genuine influence and involvement of residents.

18 http://www.cpted.net/PDF/newsletters/NEWSLETTER_2013.pdf
19 Crime prevention in the planning housing - security and welfare for residents. The Crime Prevention Council Denmark 1996.
20 *Ibid.*

These activities should be taken by municipal services, social housing companies, architects, planners, builders and many other partners. They have important role in pursuing a safe and secure neighborhood, by developing, building and managing the neighborhood with the vision of a secure home in a safe community. But also the citizens play an important role and cannot neglect their responsibility in the pursuit of a secure neighborhood. The following rules of thumb are very important in the pursuit of a safe and secure community:

– To create surveyability and visibility;
– To provide a univocal and clear zoning of territories;
– To create accessibility or on the contrary inaccessibility; and
– To provide an attractive environment.[21]

APPLICATION IN IRELAND

National Crime Prevention Unit is located in Dublin. In 1998, crime prevention advisor at headquarters and in all regions was instituted. He advises good practice about the possibilities of the method of Designing out Crime, involves himself in all security aspects, carries out a survey on security issues for plans in collaboration with architects, investors and the local authorities. The process involving the counselor runs as follows: the first receives a request from the City Council, then requires maps, perform site visit, analytical service, performs profiling and in the end the draft version of the report is submitted to the Council.

In Ireland there is a practice to implement newer methods of crime prevention, including CPTED method. It is considered that the benefits of the application of this method are: reducing crime and fear of crime; reducing criminal activity up to 40%; encouraging the population to "to watch after" each other; opportunity to reduce the economic impact of crime and vandalism; ability to create more efficient and aesthetically security solutions. This method is based on the following principles: natural surveillance/supervision; provided space;[22] territorial strengthening; natural access control; real estate design; strengthening of the goal; interaction with the community.

Visibility is about "seeing and being seen". People want to see and know what happens in their neighborhood and want to be rest assured that also others see and know that. Seeing and being seen has to be interpreted broadly. This means that sufficient people have to be present to be able to hear and see, and that a certain small scale is necessary to know the surrounding and the people living there. Visibility is thus determined by surveyability, view lines and lighting, but also by the presence of people and control. Surveillance can be executed in different ways:

- Formal (by police, security agents, etc.);
- Semi-formal (by janitors, wardens or other officials who do not have surveillance as their prior task);
- Informal (by neighbors, passers-by) often reinforced by mix of age groups. Retired people are considered the eyes of the community when people are at work.[23]

The presence of other people, for example, provides them with an opportunity to:

– Prevent a crime;
– Intervene in a crime that has started and limit its extent;
– Help apprehend the criminal;
– Summon help from others, and
– Report the crime and act as a subsequent witness.[24]

21 Manual- Crime prevention in the habitation, towards a European secure home, www.eucpn.org
22 The space can be divided as: private space under the control of the owner and unavailable to the public, e.g. private home; semi-private space under the control of the owner but visually and physically accessible to the public, e.g. garden; semi-public space under the control of the group of owners and accessible to the public, e.g. halls, parking lots; public space-space that the public has a right of access, e.g. time.
23 Manual- Crime prevention in the habitation, towards a European secure home, www.eucpn.org
24 http://www.hpw.qld.gov.au/SiteCollectionDocuments/CPTEDPartA.pdf

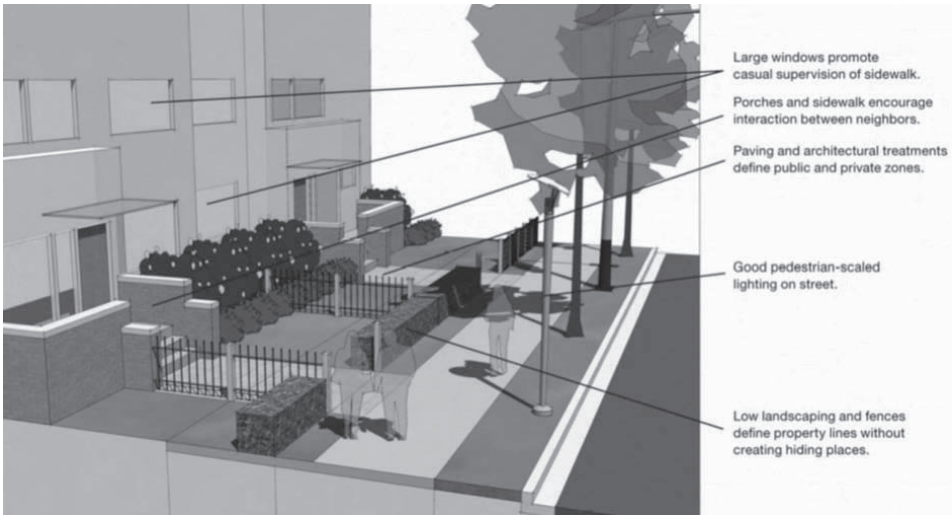

Figure 3: Visibility

Applying CPTED method in Ireland the "Project for rebuilding of Balimon" is implemented. Housing complex Balimon was built in the 60's, with 4,801 housing units (2,814 were apartments), only 20% of the tenants were owners of the apartments, the remaining 80% were owned by the state. Due to the high rate of crime in this residential complex drug-related violence etc., the authorities made a decision for its demolition and re-construction of a residential complex, but according to CPTED method. In addition, the following solutions are estimated: private open space for the apartments on the ground floor; marking the space; marking the territory; increasing the number of privately owned homes; apartments to be replaced by houses and duplexes; recruit more companies to provide variety and avoid monotony; increasing of the territoriality and natural surveillance of open spaces, such as parks; every neighbour has a park surrounded by houses; the houses around green areas are designed to look higher (reminding people that they are monitored); open sports centers, offices, a police station, etc.; the graffiti were removed; improved lighting, video surveillance systems have been set; improved police cooperation with the community, etc.[25]

Thus the application of this method has reduced the sense of fear among the population and the crime rate is reduced in that part of the town.

APPLICATION IN THE NETHERLANDS

CPTED method in the Netherlands[26] has its place in the police work through the implementation of the community policing system. According to the concept of this method in the Netherlands, it is based on the following principles:

– Visibility (lighting, layout of buildings, landscaping);
– Zoning (prevention of crime by urban planning);
– Accessibility (routes that offenders use to access and escape);
– Attractiveness (potential target for the perpetrators).

These concepts of CPTED should influence the design of our towns and cities.

25 Alan Roughneen MSc BA (Psych) Garda Síochána "Structure & Use of CPTED in Ireland – Lessons Learned",CEPOL course 45/2012, Crime Prevention through Environmental Design, 12-15 June, 2012

26 Developed by Van der Voordt and Van Wegen "Safe Design and Management" (1991), CPTED in the Netherlands, www.veilig-ontwerp-beheer.nl

How indeed do we design and manage our built environments:
– to encourage the legitimate use by lots of people of the public parts of them
– to allow others outside those public places to see what is happening in those places and near other buildings
– to avoid "hidden" places, and
– to encourage those "seeing something happening" to care and to act?[27]

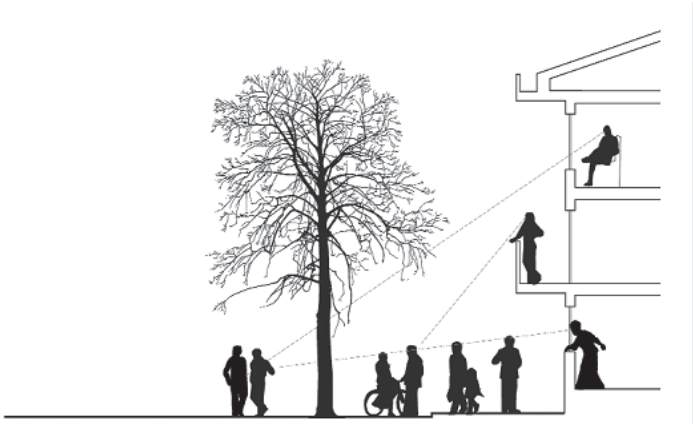

Figure 4: Windows and transparent curtains provide spontaneous monitoring of the public space

This method is widely used in practical everyday work of the police in the field work, that may appoint a person among them for the application of this method, who is educated and trained in the application of CPTED method.[28]

In the Netherlands, intermediate vocational education on average spends 42% of their safety budget on technology. 66% of all respondents indicate that they are not (yet) satisfied with the current security measures. Educational organizations have difficulties when located in problem districts and the street culture amongst the youth. The main reason that was indicated for this is that a lot of undesired behaviour is seen as normal. So they realized a project called "learning gardens" in the schools. They created surrounding area where students can work flexibly, do research, have meetings and work on assignments alone or with a group. This is a good example how modern Dutch school design maximizes interaction and small group work through environmental design.[29]

APPLICATION IN THE REPUBLIC OF MACEDONIA

What are the developments of the situational prevention in the Republic of Macedonia and the role of community in this area? Any person, company, public or private organization, (private or professional) should take care about their safety. Everyone needs to keep preventive policies to protect their assets as the object of attack. Bearing in mind that the security system encompasses state, private and public sector, crime prevention is in the hands of the private security agencies, police and citizens, i.e. companies through forms of self-protection.[30]

27 http://www.hpw.qld.gov.au/SiteCollectionDocuments/CPTEDPartA.pdf
28 Besides police officers who are responsible for applying CPTED method, in the Netherlands a person is appointed as a Neighborhood Director who is in charge of security, peace and living in the neighborhood. Marcel Zethoven,"Crime Prevention through Environmental Design in the Netherlands" CEPOL course 45/2012, Crime Prevention through Environmental Design, 12-15 June, 2012.
29 http://www.cpted.net/PDF/newsletters/Jan2011.pdf
30 Stefanovska V."Crime prevention in the Republic of Macedonia: Situations and perspectives", International scientific conference Security and Euro-Atlantic perspectives of the Balkans, Ohrid, Volume II, Skopje, 2012

With the recent changes and reforms of the police work in the Republic of Macedonia, some novelties in the prevention plan were introduced, but practically the acting according to the CPTED method and its application are not used. Namely, if there are certain areas and districts where the application of some principles of CPTED can be concluded, it means unconscious application of the method. In fact, there are certain areas or locations that have applied the principle of visibility, but there is a lack of comprehensive application of the method within their daily work and life.

In order to encourage the competent authorities to apply this method, certain measures and activities were taken in order to inform the competent authorities to the advantages of the application of CPTED method.[31] But it was found that even the authorities: the police, local authorities and others still have lack of knowledge in this area. Among other things we can conclude the following:

– Highlighted is the need for the adoption of a wide-ranging strategy for the prevention of crime. It was found that there are certain strategies at the national level to combat certain types of crime, such as trafficking, road traffic safety strategy etc., but it is necessary to reach a global strategic framework for prevention of all types of crime in the Republic of Macedonia.
– Some difficulties were determined in the realization of preventive activities in the cooperation of the Ministry of Interior of the Republic and the local government, as well as the work of prevention advisory groups of citizens at the local level. It is proposed to strengthen this cooperation and encourage the work of the advisory groups, and the involvement of the business community for support of specific projects and programs in the area of prevention.
– It was concluded that there is an inadequate level of safety culture of the citizens in the Republic of Macedonia, who are not motivated to engage in their places of residence, at the local level to undertake measures and activities for self-protection. It is necessary to strengthen the work of the Residents' Councils, engaging persons responsible of the neighborhood, raising awareness to strengthen security at the local level and the like.

Figure 5: Bad example of crime prevention in traffic

31 Expert discussion on Crime Prevention through Environmental Design was attended by a number of teachers, and students from the Faculty of Security - Skopje, Ministry of Interior Intelligence Agency of the Republic, the OSCE, the Chamber of securing people and property and other institutions.

CONCLUSION

This method does not apply for Republic of Macedonia and it is rarely used on the Balkans. This is a new method which in the future should be applied for crime prevention. The research showed that CPTED method should be applied specially for crime prevention in traffic and for other types of crime. The environmental design of the crossroads, city malls, schools, parks, etc. is not made by the rules of Situational crime prevention.

With implementation of this method the responsibility for reducing crime and fear of crime will be shared by the police and local government authorities and the competent bodies; legislature should support the application of this method; there is a need of providing education and information relevant for urban plans; each police station and local authority should appoint a person for applying CPTED method; the procedure should provide early intervention in the design process; to establish resources in EU sharing good practices; introduction of CPTED method in the curriculum of students of architecture.[32] Some states have already recognized the need to introduce this method in curricula in architecture studies, and students have a great[33] opportunity of making specific projects related to the settlement of certain architectural problems in practice.

Successful application of this method requires extensive social activity of more competent entities. This will establish cooperation between all relevant stakeholders who will be involved in the implementation. This will ensure the effectiveness of the method and will create opportunities for crime prevention through environmental design. Namely, the police, local authorities, NGOs, community or citizens and architects should be involved.[34]

In the Republic of Macedonia many conditions have to be met, first for the establishment of appropriate preventive policy, and then for its implementation and evaluation. Priority is to build a comprehensive national strategy that will reflect the reality of crime (its etiological and phenomenological characteristics), the existing capacities for the prevention of crime and to predict long-term strategic directions for prevention at all levels and in all areas of social life.[35]

In the future, all subjects should take measures for implementation of this method, for crime prevention.

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32 According to Alan Roughneen MSc BA (Psych) Garda Síochána "Structure & Use of CPTED in Ireland – Lessons Learned" CEPOL course 45/2012, Crime Prevention through Environmental Design, 12.-15. June, 2012

33 So in 2008 postgraduate students at the Faculty of Architecture Slovak University in Bratislava can implement research projects in a studio, for crime prevention through environmental design. Besides the courses and practical work, the method is included in the preparation of doctoral theses and scientific researches.

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CENTROGRAPHIC MEASURES AND SPATIAL ANALYSIS OF CRIMES[1]

Assistant Professor **Nenad Milic**, PhD
Academy of Criminalistic and Police Studies, Belgrade

Abstract: Centrographic measures are statistical tools used to determine the center, compactness, and orientation of the distribution. They have been utilized for analytic and descriptive purposes in a wide range of areas, including crime analysis. Except for determining basic descriptors for spatial distribution, in the field of crime analysis centrographic measures are used for the purpose of comparing crime distributions and tracking their changes over time. As such, they may indicate the general characteristics of the distribution of crime and initiate further steps in terms of its spatial examination including the use of more complex spatial analysis methods.

In this paper both centrographic measures are discussed: analysis of centrality and dispersion. As these measures can be calculated in different computer softwares, this paper also presents capabilities of the two of them - *Crimestat III* and *ArcGIS* – that are widely used by crime analysts all over the world. Practical use of centrographic measures is demonstrated on the data set that includes robberies committed in the period from 2008-2010, in one of Belgrade's municipalities (Cukarica).

Keywords: centrographic measures, central tendency, dispersion, spatial statistics, crime analysis, GIS, crime mapping.

CRIME MAPPING AND GIS

Crime maps facilitate understanding of the spatial context of crimes in order to explain how the environment affects the creation of opportunities and making decisions for the offender to commit the crime, or to understand behavior of the offender and the victim in relation to the space (environment) where they meet and where crime is committed (e.g., how the offender and the victim met each other at the crime scene, what led offenders to choose a specific victim, why the crime was committed in a particular place and not elsewhere, etc.). Cartographic display is visually simple and therefore suitable for the understanding of the complex relationships that may be inherent in crime event.

Nowadays with the advancement of computer technology, crime maps have become even more powerful analytical tool that can enhance effectiveness of a police organization in carrying out its everyday tasks. They have become an integral part of police resource allocation process, roll-calls, meetings with citizens, problem-oriented policing projects, serial crime investigations, etc. They can enhance police decision making at all hierarchical levels – from police beats through the entire police organization to the chief of police.

Crime mapping does not stand alone. According to Boba (2005), it is a process that occurs within the larger process of crime analysis. Within crime analysis, crime mapping serves three main functions: (1) It facilitates visual and statistical analyses of the spatial nature of crime and other types of events; (2) It allows analyst to link unlike data sources together based on common geographic variables; (3) It provides maps that help to communicate analysis results (p. 38).

Wider use of crime mapping in police practice would not have been possible without geographic information systems (GIS)[2]. Combining operations with databases, such as data queries and

1 This paper is the result of the Scientific Research Project entitled „The Development of Institutional Capacities, Standards and Procedures for Combating Organized Crime and Terrorism in the International Integration Conditions". The Project is financed by the Ministry of Science and Technological Development of the Republic of Serbia (No. 179045), and carried out by the Academy of Criminalistics and Police Studies in Belgrade (2011–2014). The leader of the Project is Associate Professor Saša Mijalković, PhD.

2 Geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. In the simplest terms, GIS is the merging of cartography, statistical analysis and database technology (Retrieved from: http://en.wikipedia.org/wiki/Geographic_information _system; available in April 2012). The GIS founders were cartographers and surveyors who have started their development over hundreds of years ago. GIS in the modern sense of the word begins to develop in the sixties, mainly in the public sector. During the 1970s and 1980s, there has been a strong development of the GIS industry, where the USA had a dominant role.

statistical analysis, with unique visualization, GIS technology today is the basis of all crime mapping systems. Spatial data are organized as a series of different thematic layers. This simple but very powerful concept of various information synthesis proved to be invaluable in the process of analysis and problem-solving, not only inside the police organization, but also in many other areas (business, scientific research, urban planning, land management, military intelligence, etc.). Although mapping and spatial analysis are not recent phenomena, GIS performs these tasks better and faster than the old manual methods. The speed, which electronically stored data are analyzed with, is much greater than the speed of traditional methods of pin maps analysis and examination[3].

GIS differs from mapping tools such as *Google Maps* or *Microsoft MapPoint* in the fact that GIS is able to answer complex spatial questions over different spatial data sets. Spatial questions typically come in the form of spatial relationship queries, with terms such as "near," "close," and "within"; for example, "Do robberies cluster near bars?" "Are sexual assaults concentrated close to the red-light districts?" and "What percentage of car thefts is within the Central Business District?" It is this ability to pose queries of a spatial nature that differentiates a GIS from mapping programs, most online applications, and cartographic software packages (Ratcliffe, 2010:9).

With the advancement in computer technology (increasing computer performances with decreasing its cost), GIS emerged as an indispensable tool for research and practice[4]. GIS is so much identified with the spatial visualization and analyses that crime mapping cannot be imagined without the use of this technology. This is illustrated by the fact that many crime mapping definitions include GIS technology as an important determinant of this notion. For example, one of the most cited crime mapping definitions in literature (Boba, 2005:37) defines crime mapping as a "process of using a geographic information system to conduct spatial analysis of crime problems and other police related issues".

THE NEED FOR SPATIAL STATISTICS

The use of GIS for crime mapping enables analysts to create custom maps focused on particular type of crime offences and the environment relevant to the analysis of their causes and manifestations. Some cartographic representations (crime maps) are quite simple and suitable for visual interpretation. In these cases when "visual analysis is sufficient - a map is created and it reveals all the information needed to make a decision. Other times, however, it is difficult to draw conclusions from a map alone. Cartographers make choices when a map is constructed: which features are included or excluded, how features are symbolized, the classification thresholds selected determining whether a feature appears bright red or a less-intense pink, how titles are worded, and so on. All these cartographic elements help to communicate the context and scope of the problem being analyzed, but they can also change the characteristics of what we see and, consequently, can change our interpretation[5]".

Also, there are situations when visual interpretation is not sufficient because cartographically represented spatial distribution is "visually overwhelming", which makes the human eye powerless. This is the case in situations where the map shows the spatial distribution of a large number of crimes (events) and wherever one looks, crime pattern (e.g., hot spot) can be spotted. Or so it seems, because the human eye tends to see patterns everywhere, even where there are none. According to Anselin et al. (2000), "the human mind is conditioned to find meaning and identify patterns and

3 The old pin maps were useful for showing where crimes occurred, but they had serious limitations. As they were updated, the prior crime patterns were lost. While raw data could be archived, maps could not, except perhaps by photographing them. The maps were static; they could not be manipulated or queried. For example, it would have been difficult to track a series of robberies that might overlap the duration (a week or month) of a pin map. Also, pin maps could be quite difficult to read when several types of crime, usually represented by pins of different colours, were mixed together. Pin maps occupied considerable wall space (Harries, 1999:1).

4 In the past decade, many different social science disciplines have been influenced by the use of GIS and spatial analysis software. Ronald Wilson and Timothy Brown show the percentage of articles in each social science discipline that use some form of mapping or spatial analysis and that have been published from 1996 to 2008. According to these results, the use of mapping and spatial analysis in the social sciences is rising. (Wilson, Brown, 2010:3)

5 Retrieved from: http://resources.arcgis.com/en/help/main/10.1/index.html#//005p00000004000000 (available in December 2012).

clusters, even when the data represented may be purely random" (p. 222). Also, reliable visual interpretation may be impeded by the fact that locations, where multiple crimes were committed, are displayed as a single dot (actually several dots are displayed one on the top of another).

What is needed in these situations is a way to "synthesize these dots" and make them more "readable". This may be done by the techniques such as grid thematic mapping or kernel density estimation (Milic, 2012:841). Applying these techniques demands a certain degree of subjectivity regarding the choice of parameters needed for their application (e.g., the choice of appropriate bandwidth) or forming the final display (e.g., classification scheme).[6]

In cases when we are not able to "visually" derive reliable conclusions, we need *spatial statistics*. Spatial statistics help cut through some of the subjectivity to get more directly at spatial patterns, trends, processes, and relationships. Spatial statistics offer powerful tools that can effectively supplement and enhance visual, cartographic, and traditional (non-spatial) statistical approaches to spatial data analysis.[7] The need for spatial statistics is well recognized by Jerry Ratcliffe (2010) who states that "it is still possible to conduct rudimentary crime mapping by sticking pins into maps; but crime data (both collectively and individually) contain a wealth of spatio-temporal information. Unless the data are computerized and analyzed using appropriate software, statistical tests and descriptive processes, that information will remain largely unavailable to both researchers and practitioners" (p. 8). Susan Smith and Christopher Bruce (2008) state that "there are times when visual interpretation does not do the job. It cannot easily pick out hot spots among thousands of data points. It cannot detect subtle shifts in the geography of a pattern over time. It cannot calculate correlations between two or more geographic variables. It cannot analyze travel times among complex road networks. And it cannot apply complicated journey-to-crime calculations across tens of thousands of grid cells. For these things, and more, we need spatial statistics (p. 3)". The need for spatial statistics is also recognized by Luc Anselin et al. (2000) who state that "the use of sound cartographic principles alone does not ensure that a proper interpretation is obtained. What is needed is a careful structuring of the visualization strategy while supplementing the visual aspects with quantitative information" (p. 222).

TRADITIONAL AND SPATIAL STATISTICS

Whenever we try to make sense out of our data we use the statistics. Statistics is the study of how to collect, organize, present, analyze, and interpret data to assist in making more effective decisions. When used correctly, statistics can show us trends in what happened in the past and can be useful in predicting what may happen in the future. The study of statistics is usually divided into two categories: descriptive statistics and inferential statistics. Descriptive statistics describe the data set that is being analyzed, but does not allow us to draw any conclusions or make any inferences about the data. With inferential statistics, we are trying to reach conclusions that extend beyond the immediate data alone. Inferential statistics is used to draw conclusions or inferences about characteristics of populations based on the data from a sample.

Descriptive statistics simply describe what the data show. Two kinds of statistics are frequently used for this purpose - measures of central tendency and dispersion. *Measures of central tendency* help summarize the data set with a single number. The term "central tendency" can refer to a wide variety of measures (arithmetic mean, median etc.) - all of them have in common that they represent the middle or the center of a distribution. With the central tendency, we know what the average value is, but we do not know how the values scatter around this average. Are the values similar to the mean or do they vary from it? We do not know for sure unless we can measure how these values *disperse* or concentrate around the mean.

In terms of crime mapping and spatial analysis we are talking about spatially referenced data or data which have a spatial location. So we have to make distinction between traditional, non-spatial statistics and spatial statistics, which brings an additional, spatial dimension to the study of statistics.

6 The impact of subjectivity on the creation and interpretation of crime maps is well recognized by Chainey and his colleagues. Speaking about the techniques of hot spots identification, they state that "little regard is given to the legend thresholds that are set that help the analyst decide when a cluster of crimes can be defined as a hotspot. This visual definition of a hotspot is very much left to the 'whims and fancies' of the map designer". (Chainey, Reid, Stuart, 2003:22).

7 http://resources.arcgis.com/en/help/main/10.1/index.html#//005p00000004000000 (Retrieved in December, 2012).

Incorporating spatial dimension into conventional statistical theory was not straightforward. Some concerns still run through the field but they are less dominant today (Longley, Batty, 1997:2).

Spatial statistics comprises a set of techniques for describing and modelling spatial data. In many ways they extend what the mind and eyes do, intuitively, to assess spatial patterns, distributions, trends, processes and relationships (Scott, Getis, 2008:437). Unlike traditional statistics methods, spatial statistics methods use distance, space, and spatial relationships as part of computations (Schaefer, 2006:5). Each point has two (X, Y) coordinates so we have two data series. Most of our spatial data sets or maps present even further complications, as we attach a size or quality to each of the points, (usually marked 'p' for population, or 'w' for weight). Thus we are dealing with a three-dimensional series. This might become even more complex when altitude ("z") of each point is added as the fourth dimension, and when 'p' is computed for several time-periods, thus adding a temporal dimension ("t") to the geographical data set (Kellerman, 1981:3).

The importance of spatial statistics is well explained by Lauren Scott (2010) who states: "When we analyze our data outside of their spatial context - when we remove space and time from our data - it's like we're only getting half the story. Things happen in space and time, and if we ignore that, our analysis is going to be incomplete. This is an important difference between traditional statistics and spatial statistics: traditional statistics often make the assumption that data are free of something called spatial autocorrelation. So, in a spatial statistics context, we are still going to talk about mean and standard deviation, but our focus will be in how those concepts apply to spatial features".

The use of the spatial statistics enables:

1) Better understanding the behavior of geographic phenomena (everything happens in space and time).
2) Pinpoint causes of specific geographic patterns.
3) Make decisions with a higher level of confidence.
4) Spatial statistics are helpful when we are dealing with large, complex data sets. They allow us to cut through some of the noise and complexity in our data to get straight at the broader trends or overall patterns. We are able to summarize our data and talk about averages, rates, or trends (Schaefer, Scott, 2006:9-13).

According to Andy Mitchell (2005), common questions that spatial statistics can answer are:

1) How are the features distributed? Statistics can describe the characteristics of a set of feature, including the center of the features, the extent to which features are clustered or dispersed around the center, and any directional trend.
2) What is the pattern created by the feature? Statistics can be used for measurement whether and to what extent distribution of features and/or attribute values creates a pattern.
3) Where are the clusters?
4) What are the relationships between sets of features or values? (p. 4)

Having in mind the scope of this paper, in the sections that follows our attention will be paid only to those spatial statistics methods called *centrographic measures*. These methods are two dimensional (spatial) equivalents of traditional descriptive statistics. They are descriptive in nature and the most of spatial analysis usually starts with them. They answer questions like where the center of the distribution is, how features are distributed around the center or what the orientation of the distribution is. Crime analysts use them for tracking changes in the crime distribution or for comparison of different crime type's distributions.

MEASURES OF CENTROGRAPHY

Like most branches of statistics, centrography uses a macro approach by trying to present a general picture of the series in one value, using all data points. Centrographic measures can be used to describe two features of discrete distributions: (1) central tendency and (2) dispersion[8].

8 The term *centrography* has some misleading connotations which point to the analysis of centrality only, rather than centrality and dispersion together.

SPATIAL MEASURES OF CENTRAL TENDENCY

When dealing with a spatial (two dimensional) data set, the concept of *average* in classical (non spatial) statistics must be extended to the concept of *center* in spatial statistics (as a measure of spatial central tendency). Since there are several averaging criteria, there are several such points.[9] The most common are: (1) the mean center (center of gravity), and (2) the point of minimum aggregate travel (often called median center).

The mean center

The mean center, or spatial mean, gives the average location of a set of points. With an established coordinate system and determined coordinates of each point, the mean center can be found easily by summing the *x*-coordinate values and dividing the total by number of features, and then doing the same for the *y*-coordinate values. The resulting *x*, *y* coordinate pair is the location of the mean center. This measure is attractive since it is computationally simple.

There are situations in which the calculation of the mean centers needs to consider more than just the location of points in the spatial distribution. Quite often, each point feature may not carry the same level of importance. For example, points may represent street addresses with multiple crimes or may be center points (called centroids) of a region (e.g., police station responsibility area) within which there are multiple crimes. In such a case, it may be appropriate for the spatial mean to be weighted by these multiple crimes represented by the point features.[10] The equation for calculating the weighted mean center is similar to the one for mean center, except, before being summed, each *x*-coordinate and each *y*-coordinate is multiplied by the weight for that feature. The result is divided by the sum of the weights. Weighting of variables affects the resultant mean center point in a way that the points with higher weights (like more crimes) affect the mean center, "pulling" it more than lesser weighted points.

In traditional statistics, the mean is the value at which the sum of all differences between the mean and all other values is zero. In the spatial statistics, the mean center is not necessarily the point at which the sum of all distances to all other points is minimized. That property is attributed to the center of minimum distance point. However, the mean center can be thought of as a point where both the sum of all differences between the mean X coordinate and all other X coordinates is zero and the sum of all differences between the mean Y coordinate and all other Y coordinates is zero.

The mean center as a distribution "descriptor" may be useful in comparing different crime distributions (e.g., robberies, burglaries, auto thefts) or the same distribution in different periods (day vs. night, weekends vs. working days, seasonal shifts in particular crime type, etc.). For example, the mean center can show us that burglaries are more concentrated towards city center, alike auto thefts which are concentrated in suburban part of the city. This info can further guide resource deployment (specialized task forces can be deployed in crime affected areas, community programs can be launched in those city regions in order to educate and mobilize citizens for the sake of crime prevention efforts, etc.). In a similar way, the mean center can be used to track the change in crime distribution over different time periods (e.g., monthly, quarterly, etc.). Except providing indication of the movement of data series, Chainey and Ratcliffe state how the mean center can be used for profiling the location of serial offender 'nodes' (Chainey, Ratcliffe, 2006:121).

Some difficulties with the mean centre include the problem that vastly different crime distributions can generate the same mean centre. This is demonstrated in *Figure 1* where data series A has the same mean centre as series B, although series B is bimodal distribution with few points near the mean centre.

9 There are several ways in which the position of spatial distribution centers can be calculated; it is important to realize that there is no one correct way of finding the center of a spatial distribution. There are appropriate methods for use in various settings, but there is probably no single correct method suitable for all situations. Therefore, the interpretation of the result of calculating the center of a spatial distribution can only be determined by the nature of the problem (Lee, Wong, 2001:36).
10 The weights in spatial statistics are analogous to frequencies in the analysis of grouped data in non spatial (traditional) statistics (e.g., weighted mean).

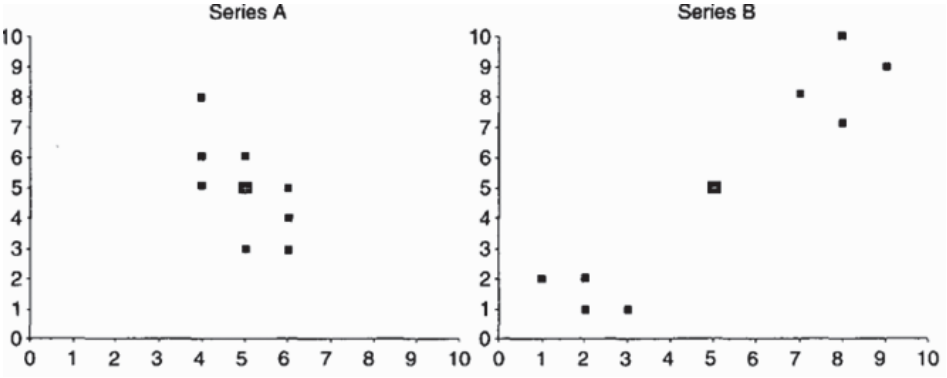

Figure 1: Two different series of eight points (units are arbitrary).
Although the series have very different distributions, they have the same mean centre
(Chainey, Ratcliffe, 2006:121).

The mean centre is vulnerable to the influence of spatial outliers, and with unusual crime series (e.g. L-shaped distribution) and unusual study areas the mean centre can even fall outside of the study area. These problems require the mean centre to be used with care, with an assessment as to whether it offers anything of value to a crime series that is being analyzed (Chainey, Ratcliffe, 2006:121-122).

The median centre

In traditional statistics, the median of a finite list of numbers can be found by arranging all the observations from the lowest value to the highest value and picking the middle one. If there is an even number of observations, then there is no single middle value; the median is then usually defined to be the **mean** of the two middle values.[11] However, this definition is not applicable in spatial statistics, when items are arranged in two-dimensional space because the division into halves is dependent on the orientation of the divisional lines. Since generally no one orientation of divisional lines can be justified over another, there is no rationale for selecting one median center. The illustrative explanation is given by Levin who states that "on a two dimensional plane there is not a single median because the location of a median is defined by the way that the axes are drawn. For example, in *Figure 2*, there are eight incident points shown. Four lines have been drawn which divide these eight points into two groups of four each. However, the four lines do not identify an exact location for a median. Instead, there is an area of non-uniqueness in which any part of it could be considered the 'median center'. This violates one of the basic properties of a statistic is that it be a unique value" (Levine, 2010:4.6). To avoid confusion, the median center is usually considered as the intersection between middle values of the distribution's X and Y coordinates.

Although, the median center is sensitive to the orientation of the axes (different axes yield different points), according to Kumler and Goodchild (1992) it is insensitive to distances from the median point (large movements of points can occur within any quadrant without affecting the location of the median center, while the movement of a single event from one quadrant to an adjacent quadrant will change the location of the point (p. 278).

11 Simon, Laura J.; "Descriptive statistics", *Statistical Education Resource Kit*, Pennsylvania State Department of Statistics (http://en.wikipedia.org/wiki/Median#cite_note-PicheRandomVectorsSequences-6)

Figure 2: Non-Uniqueness of a Median Center (Levine, 2010:4.11).

The center of minimum distance

Location, at which the sum of the distances[12] to all other points is the smallest, is called *the center of minimum distance* (CMD). In spatial statistics literature, the median center is sometimes also called CMD which could make confusion. To avoid confusion, the explanation given by Kellerman (1981) is used in this paper. Namely, the non spatial median has two major characteristics. First, it defines the middle of a series so that half the cases are larger than the median while the remainder is smaller. Second, the sum of deviations around the median is minimal. Therefore, when attempts are made to extend the median to the spatial two- and three-dimensional problem, it becomes apparent that there is no single point for a given spatial distribution which satisfies both qualities of the non spatial median. The term "median centre" may refer, therefore, either to a point which defines a "mid-point" for the studied geographical series, or it may refer to a point which minimizes the sum of distances from all points to it (p. 10).

There is no single equation that is able to determine the exact location of the centre of minimum distance. Instead an iterative procedure is utilized (e.g., the *Kuhn-Kuenne* algorithm[13]). This iterative process searches for the coordinate pair that minimizes the distance function. Traditionally, the coordinate of the spatial mean can be used as the initial values for the iterative procedure. Then a set of new coordinates is generated. The new coordinates enter the iterative equations again to derive another set of coordinates. In every iteration the location of the new coordinates is compared with the former coordinate pair to derive a distance. The iterative procedure is terminated when the distance between any two pairs of coordinates from the two consecutive iterations is smaller than a predefined tolerance value in distance (Wong, 1999:170). Earlier, the location of the point has been difficult to determine, but today, with modern computing power, its computation is no longer a problem.

Similar to weighted mean center, it is possible to calculate *weighted center of minimum distance*. In that case the distance between the interim center and each feature is multiplied by the weight value for that feature. For a point with a weight of 6, the distance would be multiplied by 6 before being summed with all other distances. The resulting distance is equal to having six points at that location (Mitchell, p. 34).

12 The centre of minimum distance is usually calculated using straight-line (Euclidean) distance, although other measures of distance, such as travel time, can also be used (Mitchell, 2005:27).

13 Reference to Kuhn-Kuenne algorithm can be found at ESRI web site: http://help.arcgis.com/en/ arcgisdesktop/10.0/help/index.html#/How_Median_Center_works/005p0000001t000000/)/ (available in December 2012)

Though the CMD is more sensitive to changes in the location of points (outliers) when compared to the median centre, it is still far less sensitive compared to the mean centre (*Figure 3*). For example, for a compact cluster of points, the **mean center** would be a location at the center of the cluster. If a new point had been added far away from the cluster and the mean center was recomputed, the result would be pulled toward the new outlier. If this "experiment" had been performed using the CMD point, the result location would not be moved to that extent.

For many applications, the CMD center is a more representative measure of central tendency than the mean center. CMD center is more preferred when the influence of the rare peripheral events to the core distribution is to be minimized. Also, CMD center could be used for the police patrol deployment. If the police patrol was located at the CMD center point, it would have the shortest path to the locations of possible calls for service from that area. Hence, the police response time could be decreased.

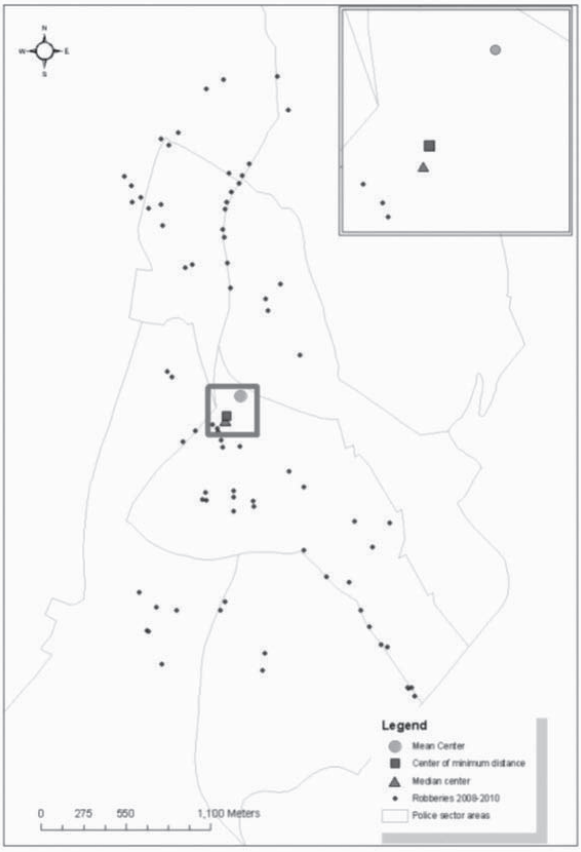

Figure 3: Central tendency measures applied on the spatial distribution of the robberies crime data committed in Cukarica municipality (Belgrade, Serbia) in the period from 2008-2010. CMD and median center are very close to each other, whereas mean center is moved away because of its sensitivity on the distributions' distant points (spatial outliers).

Centre of minimum distance must not be mistaken for the *central feature* in a data set. The latter is most centrally located feature in a point dataset. It is determined in the way that distances from each event to every other event are calculated and summed. Then the feature associated with the shortest accumulative distance to all other features (**weighted** if a weight is specified) is central feature.

SPATIAL MEASURES OF DISPERSION

Unlike measures of central tendency, measures of dispersion inform us about compactness and orientation of a given set of features. Analogous to the standard deviation in classical statistics (shows how much variations or dispersions exist from the arithmetic mean), *standard distances* or *standard ellipses* have been used to describe how a set of points disperses around a mean center. The more dispersed a set of points is around a mean center, the longer the standard distance and the larger the standard ellipse will be.

Standard distance

As the mean center serves as a spatial analogue to the mean, standard distance is the spatial equivalent of standard deviation. While standard deviation indicates how observations deviate from the mean, standard distance indicates the degree to which features are concentrated or dispersed. Standard distance value represents the average distance the features vary from the mean center. Quite often, the calculated spatial distance value is used as a radius so that a circle (standard distance circle) can be drawn centering at the spatial mean to visually represent the deviation from the mean (*Figure 4*).

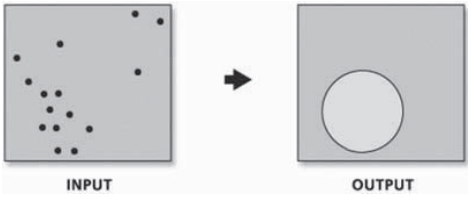

Figure 4: The standard distance is represented as a circle centered on the mean center, with a radius equal to the standard distance (*ESRI* ArcGIS Resource center[14]).

Since points in a distribution may have attribute values that can be used as weights when calculating their mean center or even their median center, it is also possible to weight the points with specified attribute values when calculating the standard distance.

Standard distance values are useful in:

1) Comparing compactness of two or more distributions. A crime analyst, for example, could compare the compactness of assaults and auto thefts. Knowing how the different types of crimes are distributed may help police develop strategies for addressing the crime. If the distribution of crimes in a particular area is compact, stationing a single car near the center of the area might suffice. If the distribution is dispersed, having several police cars patrol the area might be more effective in responding to the crimes.
2) Comparing the same type of feature over different time periods—for example, a crime analyst could compare daytime and night time burglaries to see if burglaries are more dispersed or more compact during the day than at night.
3) Comparing distributions of features to stationary features. For example, you could measure the distribution of emergency calls over several months for each responding fire station in a region and compare them to see which stations respond over a wider area (Mitchell, 2005: 39-40).

Chainey et al. (2003) demonstrated how the standard distance could be used to show different levels of dispersion between different crime types, showing that robbery to a person tended to be less dispersed than residential burglary and vehicle crime. This result indicated that robbery was concentrated at a few locations in comparison to the wider spread of residential burglary and vehicle crime (Chainey, Ratcliffe, 2006:122).

14 The graphical representation is taken from: http://resources.arcgis.com/en/help/main/10.1/index.html#//005p0000001m000000 (available in December 2012).

According to Sööt (1975) the fundamental disadvantage of the standard distance is that it is primarily a test of circular normality. He also observes that a measure of scatter should delimit the area of highest concentration, while not extending beyond the study area; however, such an occurrence is difficult to avoid when the distribution is confined largely to a limited area near the perimeter (p. 27).

Standard deviation ellipse

Standard distance is useful to describe the spread of locations around the spatial mean. But quite often, locations may spread around a spatial mean with specific orientation, which cannot be reflected by standard distance. Namely, the distance deviation of the points around the mean centre is not equal in every direction, so that it has to be summarized and expressed at least in two directions along the X and Y axes. Hence, SDE is the improvement over standard distance, because standard deviation ellipse minimizes the amount of "extra space" that may appear in some standard distance deviational circles, better accounting for skewed distributions (*Figure 5*).

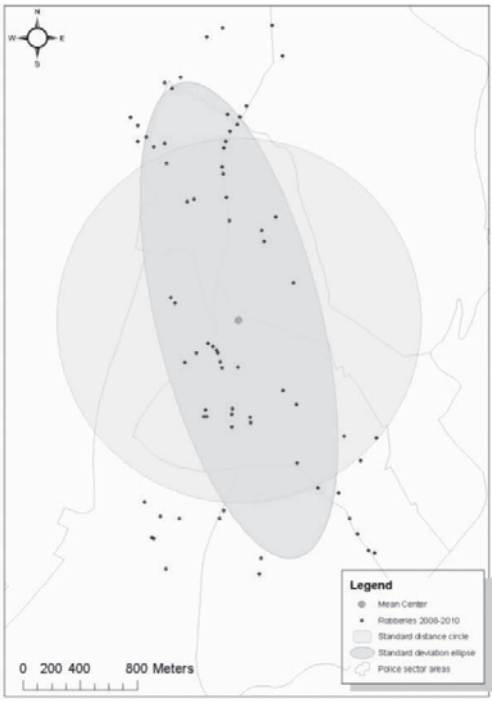

Figure 5: Standard distance circle and one standard deviation ellipse applied on the spatial distribution of the robberies crime data committed in Cukarica municipality (Belgrade, Serbia) within 2008-2010 time span. Ellipse minimizes the extra space and provides info regarding orientation of the distribution.

The ellipse is referred to as the standard deviational ellipse, since the method calculates separately the standard deviation of the x-coordinates and y-coordinates from the mean center to define the axes of the ellipse. Since the standard deviation is measured in each direction from the mean center, the total length of each axis is twice its standard deviation.

Suppose we have two distributions that create identical ellipses that have the same center, except one is oriented north-south and the other is oriented east-west. Clearly they do not coincide very well, but the standard distance circles (as a "synthetic" measure) for the distributions would perfectly overlap (*Figure 6*).

Figure 6: Standard deviational ellipse clearly shows orientation of the distribution

There are three components in describing a standard deviational ellipse: the angle of rotation, the deviation along the major axis (the longer one), and the deviation along the minor axis (the shorter one) (*Figure 7*). The three major steps in obtaining the ellipse components are: transforming the locations to center at the spatial mean (deriving the x's and y's); deriving the angle of rotation based upon the transformed coordinates; calculating the deviations of locations along the rotated x and y axes. Results from these three steps are used to create the standard deviational ellipse.

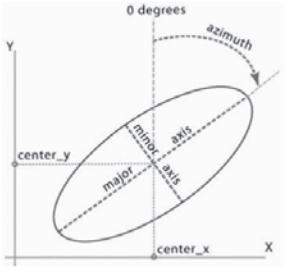

Figure 7: Elements of the standard deviation ellipse: the angle of rotation, the deviation along the major axis (the longer one), and the deviation along the minor axis (the shorter one).

Like standard distance, standard deviational ellipse is useful for the purpose of comparison (e.g., comparison of two or more distributions or one distribution in different times). If a distribution is (1) multimodal, (2) uniform, (3) random, or (4) pear-shaped, then an ellipse is not a good descriptive form (Sööt, 1975:29).

When the events have a spatially normal distribution (meaning they are the densest in the center and become increasingly less dense toward the periphery), one standard deviation will encompass approximately 68 percent of all events. Two standard deviations will encompass approximately 95 percent of all events, and three standard deviations will cover approximately 99 percent of all events. In the robberies spatial distribution shown in Figure 5, one standard deviation ellipse comprised 57 percent of all robberies.

As with standard distance the standard deviational ellipse can be calculated using either the locations of the features or the locations influenced by an attribute value associated with the features. The latter is termed a *weighted standard deviational ellipse*.

THE CALCULATION OF CENTROGRAPHIC MEASURES AND THE SPATIAL STATISTICS SOFTWARE

In the past, the calculation of the centrgraphic measures was not always an easy task. Nowadays, with the affordable high performance personal computers, this can be easily performed using appropriate software tools like *CrimStat*[15]. *CrimeStat* not only performs the calculations, but also

15 *CrimeStat III* is a spatial statistics program for the analysis of crime incident locations, developed by Ned Levine & Associates under the direction of Ned Levine, PhD, that was funded by grants from the National Institute of Justice. The program is Windows-based and interfaces with most desktop GIS programs. The purpose is to provide supplemental statistical tools to aid law enforcement agencies and criminal justice researchers in their crime mapping efforts. *CrimeStat* is being used by many police departments around the country as well as by criminal justice and other researchers. The latest version is 3.3.

creates output files that can be imported into GIS software such as *ArcGIS* and *MapInfo* and visually displayed (*Figure 8*).

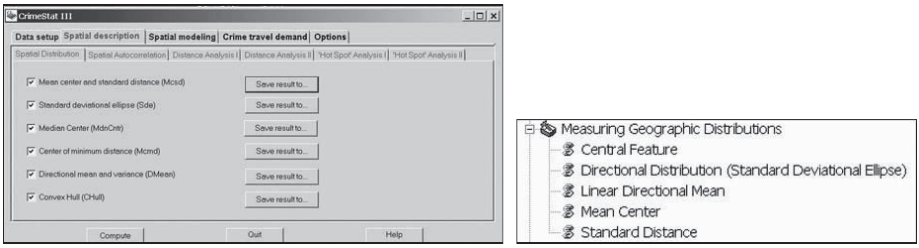

Figure 8: CrimeStat III spatial description tab (left) and some of the ArcGIS 9.3. spatial statistics tools (right).

Visualization capability is very important because the most centrographic measures become really useful after they are graphically displayed. Having this in mind, the most desired are "all in one" solutions like Esri's *ArcGIS* which allow the computation and visualization of different spatial statistics tools, including centrographic measures.[16] The tools in the ArcGIS' spatial statistics toolbox can summarize the salient characteristics of a spatial distribution (determine the mean center or overarching directional trend, for example), identify statistically significant spatial clusters (hot spots/cold spots) or spatial outliers, assess overall patterns of clustering or dispersion, and model spatial relationships.[17] The main advantage of the *CrimeStat III* is that it can be obtained free of charge. The lack of visualizations capabilities can be overcome by using some open source GIS solutions.

Measure	*ArcGIS 10.1*	*CrimeStat III*
MEAN CENTER	X	X
GEOMETRIC MEAN		X
HARMONIC MEAN		X
MEDIAN CENTER		X
CENTRAL FEATURE	X	
STANDARD DISTANCE	X	X
STANDARD DEVIATIONAL ELIPSE	X	X
THE STANDARD DEVIATION OF THE X AND Y COORDINATES		X

Table 1: A comparative review of some centrographic capabilities of the two the most common software: ArcGIS 10.1 and CrimeStat III.

16 ArcGIS is licensed under three functionality level: ArcGIS for Desktop Basic (formerly known as *ArcView*), which allows one to view spatial data, create layered maps, and perform basic spatial analysis; ArcGIS for Desktop Standard (formerly known as *ArcEditor*), which in addition to the functionality of *ArcView*, includes more advanced tools for manipulation of shapefiles and geodatabases; and ArcGIS for Desktop Advanced (formerly known as *ArcInfo*), which includes capabilities for data manipulation, editing, and analysis. All extensions can be purchased separately to increase the functionality of ArcGIS.

17 More info regarding capabilities of the *ArcGIS* software can be found at www.esri.com.

CONCLUSION

The spatial perspective may be used for analyzing any topic that has a spatial distribution, that is, anything that can be mapped. Police organizations recognized the advantages of the spatial perspective a long time ago. The lack of adequate software has kept police practice from being enriched by spatial "view" on the crime.

With the advances made in computer technology, including development of specialized GIS software, spatial perspective came to the forefront of policing. The speed, with which electronically stored data are searched and analyzed, represented huge improvement over traditional hardcopy maps and colored pins. New "place based" policing strategies (e.g., hot spot policing) have emerged. The effective combination of criminological theory and spatial analysis principles has allowed them to gain prominence and acceptance.

Today crime mapping has been greatly affected by the advances made in GIS and became integral part of the everyday policing practices. Except for displaying crime data, GIS capabilities are also indispensable in the data analysis phase. Patterns in data must be identified, and underlying processes must be understood in order to be effective in crime prevention. For that sake, spatial statistic tolls are developed and used. Today, the most commercial GIS solutions already have more or less developed statistical capabilities. In cases where built-in GIS statistical capabilities are not sufficient to satisfy particular research need, they must be supplemented by specialized statistical software.

Spatial statistic is useful because visual analysis can be misleading – the characteristics we are interested in may not be apparent by simply mapping features, especially if the subject of analysis is a larger data series. In case where a number of crime incidents were mapped, centrographic measures provide a useful way to summarize crime distribution, track its changes during time or to compare it with each other (for example, two crime type distribution). They can be calculated using either the locations of the features or the locations influenced by an attribute value associated with the features.

Spatial mean, spatial median, the centre of minimum distance, standard distance and standard deviational ellipse provide not only objective quantitative measures of the basic characteristics of a point distribution, but they can be cartographically displayed (as a point, circle or ellipse) which facilitate further analysis efforts. The use of centrographic measures usually precedes the use of other, more complex, spatial statistics aimed to measure whether and to what extent the distribution of features creates a pattern (e.g., *Morans' Index*), to find individual clusters (e.g., *Getis-Ord* G_i^*), or to discover relationships between sets of features or values (e.g., geographically weighted regression analysis).

Centrographic measures allows us to visualize a complex spatial trends, how quickly the mean center moves, and where it moves, if there are changes in dispersion and/or orientation of the crime distribution, etc., providing valuable information about the spatial processes promoting this crime shifts. They also give us a degree of confidence in our analysis because they are based on statistical calculations, not only to our visual interpretation. Although descriptive in their nature, centrographic measures are valuable spatial generalizations tools, worthy of wide-spread use in the crime analysis field.

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UDC: 343.983:004

SCIENTIFIC APPROACH IN BUILDING TEAMS FOR SEIZURE OF DIGITAL EVIDENCE[1]

Assistant Professor **Zvonimir Ivanovic**, PhD
Academy of Criminalistic and Police Studies, Belgrade
Mato Zarkovic
Belgrade Police District, CID

Abstract: In the beginning, while nobody has even thought about usage of digital evidence, it was very simple to do the crime scene investigating. Nowadays, with all of the gadgets emerging and storages evolving, there is aftermath approaching in dealing with the evidence on the crime scene. On site witnessing, doing the crime scene documenting and producing documentation projecting the crime scene status are a simple actions, which are now with new dimensions, becoming very complex. Creating teams for crime scene processing is extremely complex process now. A team should consist of people who are lawyers, police officers, technically savvy, electronically savvy, computer savvy people, forensic experts, digitally forensic experts, human rights experts, almost everything there is to know about possible activities at the crime scene those people are to know that. How is it possible to get that all in few people processing the scene? Authors are dealing with that in this article, and they are doing that from the new perspective of management and demands of the law and criminal procedure and police profession. They are also elaborating about the Data integrity, Chain of evidence, General seizure instructions for electronic devices and much more about digital evidence processing.

Keywords: crime scene processing, chain of evidence, team for CSI, CSI, seizure of digital evidence.

INTRODUCTION

The world of criminalistics had changed in the last decade; personal computers have become an increasingly important source of evidence in criminal cases. Sources of electronic data have grown exponentially with the popularity of, for instance, text messaging, social networking, and e-mail. This variety of data represents a key component of police investigations and a potential source of evidence that could proove critical in supporting the prosecution of different types of crimes. In a growing number of cases, searching the suspect's personal computer is an essential step in the investigation. Computers record and store a remarkable amount of information about what users write, see, hear, and do. Today most of the cases have some form of digital evidence. As evidence quickly moves from the physical and document based to the digital and electronic, the knowledge skills and abilities of those who are charged with identifying, seizure, and analyzing evidence must adapt to meet the new demands. This is important not only for seizure of digital evidence, but also having up-to-date procedures for its proper handling, archival, and maintenance, particularly to ensure its suitability for presentation in court.

Digital evidence presents (is) information and also presents data which could be used to establish that a crime has been committed and can provide a link between a crime and its victim or can provide a link between a crime and the perpetrator that is stored on, received, or transmitted by an electronic device. This evidence is valuable evidence and it should be treated in the same respect and care as traditional forensic evidence. The methods of recovering electronic evidence, whilst maintaining evidential continuity and integrity, may seem complex and costly, but experience has shown that, if dealt with in a correctly manner, they will produce evidence that is both compelling and cost effective. Digital evidence includes computer evidence, cell phones, digital audio, digital video, removable devices etc.

1 This paper is the result of the realisation of the Scientific Research Project entitled „Development of Institutional Capacities, Standards and Procedures for Fighting Organized Crime and Terrorism in Climate of International Integrations". The Project is financed by the Ministry of Science and Technological Development of the Republic of Serbia (No 179045), and carried out by the Academy of Criminalistics and Police Studies in Belgrade (2011–2014). The leader of the Project is Associate Professor Saša Mijalković, PhD.

CRIME SCENE PROCESSING – DIGITAL EVIDENCE

Computer-based electronic evidence is information and data of investigative value that is stored on or transmitted by a computer. As such, this evidence is latent evidence in the same sense that fingerprints or DNA (deoxyribonucleic acid) evidence is latent. In its natural state, we cannot see what is contained in the physical object that holds our evidence. Equipment and software are required to make the evidence available. Testimony may be required to explain the examination and any process limitations. Computer-based electronic evidence is, by its very nature, fragile. It can be altered, damaged, or destroyed by improper handling or improper examination. For this reason, special precautions should be taken to document, collect, preserve and examine this type of evidence. Failure to do so may render it unusable or lead to an inaccurate conclusion. Here we are suggesting methods that will help preserve the integrity of such evidence. Whilst this document focuses mainly on the retrieval of evidence from standalone or networked computer systems and its subsequent detailed examination, consideration is also given to retrieving evidence from the wider Internet e.g. web sites.

The goal of a crime-scene investigation is to find, recognize, document, and seize evidence at the scene of a crime. Solving the crime will then depend on piecing together all the evidence as a puzzle to form a picture of what happened at the crime scene. Basic law enforcement training in crime scene investigation has long been limited to the documentation and seizure of physical evidence. In time, the need for scientific crime scene investigators increased. In addition to documenting and seizure of physical evidence, use of scientific knowledge and forensics techniques to identify evidence and generate leads is needed, to assist in solving a crime. This is so also because of overwhelming presence of digital devices used by practically everyone – the perpetrator, victim or witness.

This lead as to conclusion that successful team should consist of legal and scientific professionals which work together to solve a crime. At the crime scene professionals that can be included are police officers, detectives, crime-scene investigators, district attorneys, medical examiners, scientific specialists.

Police officers are usually first to arrive at crime scene. Even though they will not be involved in the identification and seizure of digital evidence, they should at least be trained in its identification and characterization. They will be able to identify and preserve the sources of digital data and potential evidence. Cardinal rule for first responder is „If you see a computer, cell phone, etc. and it's on, leave it on, and if it the computer, cell phone, etc., is off, leave it off". When we're following this rule we will eliminate the many additions, deletions, lost data, and changes to digital devices. In some cases it could be necessary that a first responder seizure or access digital evidence, so he must be trained properly to do it and explain the relevance and implications of that action. For example, because of limited battery life in cell phone or laptop first responder must collect or secure digital evidence. For that reason they must be appropriately trained to be able to search, document and seize digital evidence if no experts are available at the scene.

The first responder should secure the crime scene, integrity of all evidence (traditional and electronic). He should do that by moving all persons away from crime scene, protect perishable evidence, observe persons to prevent them from altering or destroying the evidence, separate and identify all persons at the scene.

Most suitable thing would be that the digital forensic expert arrives at crime scene and gathers potential digital evidences without interference of other people who are at the scene of crime. However, in most of the cases, the electrical or electronically devices who may contain digital evidence are seized by crime-scene investigator, and is transported to forensic lab were digital forensic expert examine them. That is why we need to educate crime scene investigator how to find, seize and treat electrical and electronically devices which are sources of potential evidence. If it is expected to find relevant digital evidence at crime scene the best thing to do is to send out digital forensic expert. It is of great importance to properly document the location, status and condition of computers, storage media, other electronic devices, and conventional evidence and their mutual relations at the crime scene.

When conducting seizure of a computer system it is important to photograph device from multiple angles, showing cable connections and placement, because it can help in the analysis by forensics investigator. Labeling each cable and its connection point is also useful to forensic investigators, because most of the systems require the disconnection of an array of cables and peripheral devices. Also it is very important to register all of the wireless connections present in the neighborhood, and also connections established on the system, present, recorded. The most important is that digital evidence is seized adequately in a proper manner so they could be used as evidence in court. When handling digital evidence it should be done carefully so we could preserve its evidential value and also maintain a chain of evidential custody. This counts not only for physical integrity of device, but also for data integrity which is stored on device.

Of great importance is to identify storage media, or piece of equipment with storage capacity which may contain digital evidence. Crime investigators must recognise which storage media should be considered. This media is often the primary source of evidence and care must be taken not to overlook the obvious. All possible storage media must be identified, including traditional (hard drives, diskettes, CD's, DVD's), and non-traditional (cell phones, digital camera, USB devices, flash memories, digital cards, SSDs'). Accurate and complete identification is needed to satisfy principles of authenticity, reproducibility and the evidence custody chain. When the type of evidence is determined, investigator can effectively seize the evidence with minimal chance of contamination and maximal authenticity, reproducibility, while at the same time maintaining the chain of custody. Understanding the evidence type and degree of transience allows the investigator to prioritize the actual seizure process. Communication devices such as mobile phones, smart phones, PDAs, and pagers should be secured and prevented from receiving or transmitting data once they are identified and seized as evidence. The real challenge is to seize the evidence without any unnecessary contamination.

In order to avoid contamination crime scene investigators should:

– set up priority determined by order of volatility
– consider digital evidence usually more volatile than physical evidence
– prioritize digital evidence based on its volatility
– use the correct techniques, tools and processes
– document every step

Computers and related devices and equipment are fragile electronic instruments that are sensitive to temperature, humidity, physical shock, static electricity, magnetic sources, and even to some actions (switching on/off). Therefore, special care should be taken when finding, preserving, packaging, transporting, and storing digital evidence. Package evidence for transport is one of the crucial events in crime scene analysis. While preserving and packaging the evidence it is necessary to ensure that it is properly documented and labeled. If possible use original package for transport the device or use antistatic packing (antistatic plastic bag), don't use package material that causes static electricity (standard plastic bag). After the control done at the scene for the first time evidence will leave the controlled environment, and will be transported to lab. During transportation there is possibility of damaging evidence directly or indirectly if not handled right. In that risk physical damage to computer system or devices and loss of critical data can occur. Understanding the sensitivity of various data or equipment is necessary, such as tolerable temperature and humidity ranges, sensitivity to vibrations and electromagnetic radiation, tolerance to long term storage without electricity. To avoid any damage:

– pack evidence in appropriate containers (anti-static bags)
– understand the tolerance of various sources of evidence to electromagnetic sources (radio transmitters, magnets)
– document all decisions and reasons for decisions that could be outside of the norm (leaving device exposed to extreme temperature)

Crime scenes on the Internet

The Internet is a medium through which material can be stored, relayed or shared. Despite its size and complexity, it is nothing more than a large computer network. Ultimately, any information on the Internet physically resides on one or more computer systems and, therefore, it could be retrieved through a forensic examination of those physical devices. However, some of this information may be volatile, e.g. instant messaging content; or it could be altered or deleted prior to the location and examination of those devices, e.g. website content. In such cases, it may be necessary to capture evidence directly from the Internet, possibly during 'live' interaction with a suspect or by capturing live website content. In those course personnel doing that job must be specially trained, and also they must be empowered to do so. Cybercrime Convention of the Council of Europe, nr.185. gives those powers.

E-mail

E-mail is increasingly seen as the communications medium of choice, amongst a technically aware population. E-mail can be forensically retrieved from physical machines, although in certain circumstances it may be that only a small number of e-mails require retrieval and examination. Investigators may wish to obtain these from a victim's computer system, without having to address possible delays in obtaining a forensic examination or causing significant inconvenience to the victim. But this is a form of special investigation measure application from the article 166. of Criminal procedure code (CPC)[2], and also a matter which is of interest and subject of dozen rules brought by European Court of Human Rights (ECHR). In such circumstances, printed copies of the e-mails themselves, including header information, would be sufficient to evidence the sending / receipt and content of the e-mail. Header information is not normally visible to the reader of the e-mail, but it can be viewed through the user's e-mail client program. The header contains detailed information about the sender, receiver, content and date of the message. Investigators should consult staff within their force (department of forensics) if they are under any doubt as to how to retrieve or interpret header information. Clearly any such evidential retrievals need to be exhibited in the conventional manner i.e. signed, dated and a continuity chain established.

E-mail / Webmail / Internet Protocol Address account information

Investigators seeking subscriber information relating to e-mail, webmail or Internet connections should consult Prosecutor. Any request for Telecommunications Data is subject to the provisions of the few laws of that area.

Websites / Forum Postings / Blogs

Evidence relating to a crime committed in the Republic of Serbia may reside on a website, a forum posting or a web blog. Capturing this evidence may pose some major challenges, as the target machine(s) may be cited outside of the Serbian jurisdiction or evidence itself could be easily changed or deleted. In such cases, retrieval of the available evidence has a time critical element and investigators may resort to time and dated screen captures of the relevant material or 'ripping' the entire content of particular Internet sites. When viewing material on the Internet, with a view to evidential preservation, investigators should take care to use anonymous systems. Failure to utilise appropriate systems could lead to the compromise of current or future operations. Investigators should consult Public prosecutor if they wish to 'rip' and preserve website content.

Open Source Investigation

There is a public expectation that the Internet will be subject to routine 'patrol' by law enforcement agencies. As a result, many bodies actively engage in proactive attempts to monitor the Internet and to detect illegal activities. In some cases, this monitoring may evolve into unauthorized 'surveillance'. In such circumstances, investigators should seek an authority for

2 Official Messenger of Republic of Serbia, "Službeni glasnik RS" nr. 72/2011, 101/2011 i 121/2012

directed surveillance according to the article 166 of CPC, otherwise any evidence gathered may be subsequently ruled inadmissible, or it could present a criminal act. Once again, when conducting such activities, investigators should utilise anonymous systems which are not likely to reveal the fact that law enforcement is investigating that particular section of the Internet.

Covert Interaction on the Internet

In circumstances where investigators wish to covertly communicate with an online suspect, they must utilise the skills of a trained, authorised Covert Internet Investigator (CII). CIIs have received specialist training which addresses the technical and legal issues relating to undercover operations on the Internet. Also this action falls under special investigative techniques proscribed by article 182. of CPC. The interaction with the suspect(s) may be in the form of e-mail messaging, instant messaging or through another online chat medium. When deploying CIIs, a directed surveillance authority must be in place according to art.166 CPC, as well as a separate CII authority (art.182. CPC). Prior to deploying CIIs, investigators should discuss investigative options and evidential opportunities with the force department responsible for the co-ordination of undercover operations.

Seized evidence should be brought to lab for examination. Term lab is used in wide sense and could be merely controlled environment back at the office, police station, private lab or governmental lab facility. Regardless of the type of lab, it must have procedures and proper standards[3] to provide integrity and the chain of custody of evidence while it is needed. When evidence is stored and device is no longer needed, the device is returned to the owner, except in legally strictly proscribed cases. The lab environment is usually the place where digital forensic expert analyze, examine, and write reports. Depending on circumstances of the investigation, the analysis and examination may take place on site. Than the field examination is often just a cursory look to confirm the grounds for probable cause, issuance of a court order, or to assist in the field interview of any suspects. All persons who are in contact with the digital evidence should have the suitable knowledge, skills, abilities and up to date training on how to deal with digital evidence.

PROCEDURE AT CRIME SCENE WHERE WE NEED TO SEIZE COMPUTER

According to the ACPO (Computer Based Evidence, 2013): Four principles are involved: Principle 1: No action taken by law enforcement agencies or their agents should change data held on a computer or storage media which may subsequently be relied upon in court.

Principle 2: In circumstances where a person finds it necessary to access original data held on a computer or on storage media, that person must be competent to do so and be able to give evidence explaining the relevance and the implications of their actions.

Principle 3: An audit trail or other record of all processes applied to computer-based electronic evidence should be created and preserved. An independent third party should be able to examine those processes and achieve the same result.

Principle 4: The person in charge of the investigation (the case officer, investigating judge or acting PP – or his (or her) deputy) has overall responsibility for ensuring that the law and these principles are adhered to.

Firstly, crucial thing to do is to secure and take control of the area containing the equipment and move people away from any computers, devices which can be used to wirelessly tamper with digital evidence and power supplies. All activities must be photographed or video recorded at the scene and all the components including the leads on site and label the ports and cables must be taped so that system may be reconstructed. If no camera is available, draw a sketch plan of the system and label the ports and cables so that system/s may be reconstructed at a later date. Allow any printers to finish printing. Do not, in any circumstances, switch the computer on. Make sure that you are sure that the computer is switched off, if you are reporting about the crime scene, because some screen

3 For example such as these http://www.iso27001security.com/html/27037.html

savers may give the appearance that the computer is switched off, but hard drive and monitor activity lights may indicate that the machine is switched on. Some laptop computers may power on by opening the lid. Remove the main power source battery from laptop computers, but make sure that the machine is not in standby mode, because than battery removal could result in data loss. Label the ports and cables so that the computer may be reconstructed. Ensure that all items have signed exhibit labels attached to them, if not it may create difficulties with continuity and cause the equipment to be rejected by the forensic examiners. Search the area for diaries, notebooks or pieces of paper with passwords, which are often attached or close to the computer. Consider asking the user about the setup of the system, including any passwords, if circumstances dictate. If these are given, record them accurately. If paper with passwords cannot be found, consider asking the user about it, and record them accurately. Also, make notes of all actions taken that are concerning computer equipment.

In cases when a computer is turned on, some additional considerations should be made. It should be recorded what is on the screen by taking a photo and by making a written note of the content of the screen. Consider asking the user about the setup of the system, including any passwords, if circumstances dictate. If these are given, record them accurately.

The keyboard or the mouse, and with the touch screen devices – the screen, should not be touched, unless the screen is blank or a screen saver is present. Then the case officer should be asked to decide if they wish to restore the screen. To do so, a short movement of the mouse, or mild slide on the screen, should restore the screen or reveal that the screen saver is password protected. In the case the screen is restored, photograph or video it and note its content, if password protection is shown, continue without any further touching of the mouse or the touchpad or screen. All these actions should be recorded, the time and activity of the use of the mouse or other user interface (UI) devices. When possible, collect data that would otherwise be lost by removing the power supply. Ensure that all actions that are performed, and changes made to the system are identified and recorded. If no digital forensic expert on crime scene is available to seize computer, remove the power supply from the back of the computer without closing down any programs. When removing the power supply cable, always remove the end attached to the computer and not that attached to the socket. This will avoid any data being written to the hard drive. It is of great importance to know that when the power is removed from a running system, any evidence stored in encrypted volumes will be lost. In that case it should be noted that potentially valuable live data may be lost, leading to damaged claims. Also when dealing with laptops, net books, notebooks and tablets it is important to determine the status and not to switch or power off them, but also it is extremely important to determine if they are connected to any kind of power cord in the moment of seizure. Then it is of importance to mention the status and type of connection that device is having (including the wireless or Bluetooth one). It is also recommended not to power off any device unless it is absolutely necessary to do so (in case of difficulties of obtaining presence of an expert). Allow the equipment to cool down before removal, and pack it separately, with safety precautions. Also when any kind of device is present as mobile or handheld, capable of making any kind of wireless connection there should be considered usage of Faraday's cage, some kind of metal box which does not allow establishing connection.

Here are examples of devices that should be seized for the retrieval of evidence: Main unit (this is usually the box to which the monitor and keyboard are attached), hard disks that is not fitted inside the computer, external drives and other external devices, wireless network cards, modems, routers, digital camera, floppy discs, backup tapes, zip cartridges, CD's, DVD,s memory sticks, memory cards, memory devices as: IC cards, Solid state disks (SSD), CF Cards, Dongles, Smart Media Cards, tablets, smart phones and tablets, and of course their accessories, as well as any leads and cradles used for connecting the organizer, smart phone or tablet PC, Wireless network cards Facsimile machines, Dictating machines, Digital cameras, Telephone e-mailers, Internet-capable digital TVs, Media PC, Satellite receivers, HD recorders, Next generation games consoles. Always label the bags containing these items, not the items themselves. If the power is removed from a running system, any evidence stored in encrypted volumes will be lost, unless the relevant key is obtained. Also, note that potentially valuable live data could be lost, leading to damage claims, e.g. corporate data, that for actions performed, changes made to the system are understood and recorded. Consider advice from the owner/user of the computer but make sure this information is treated with caution. Remove all other connection cables leading from the computer to other wall or floor sockets

or devices. In order to assist in the examination of the equipment, seize: Manuals of computer and software, anything that may contain a password, Encryption keys, and Security keys – required to physically open computer equipment and media storage boxes. For comparisons of printouts, seize: Printers, printouts and printer paper for forensic examination, if required. Aalso a whole range of wired and wireless devices may be encountered: Switches, hubs, routers, firewalls (or devices which combine all three), Embedded network cards (e.g. Intel Centrino), Access Points, Printers and digital cameras, Bluetooth devices – PDAs, mobile phones, dongles etc, Hard drives both wired and wireless,Wireless networks cannot be controlled in the same way as a traditionally cabled solution and are potentially accessible by anyone within radio range. The implications of this should be carefully considered when planning a search or developing the wider investigative strategy. Storage devices may not be located on the premises where the search and seizure is conducted.

TYPES OF SEIZURE OF DIGITAL EVIDENCE

When dealing with seizure of digital evidence there are four general types to be found:

1) seizure of digital evidence by confiscating electronic equipment and storage media,
2) seizure of digital evidence by copying the entire memory contents,
3) seizure of digital evidence by confiscating the backup storage media,
4) seizure of digital evidence by selective data copying.

During the seizure at the crime scene it is not obligatory to use only one of the types of seizure; it is common to combine them. For example, it might be necessary to confiscate the electronic equipment and the backup storage media.

Seizure by confiscating electronic equipment and storage media may be suitable in cases where there is not much equipment to be confiscated (desktop computer, laptop), there is no risk of high financial or other loss caused by seizure of equipment from the network. This type of seizure is also appropriate when confiscation of equipment is absolutely necessary because it is mean of crime that is committed. Accomplishing that, crime scene investigators will stop potential crime activities supported by the equipment.

This type of seizure has its advantages – it can be performed without digital forensic expert support at the scene, the seizure procedure is not time consuming, digital evidence is taken under control and can be analyzed in controlled environment. However, the disadvantages of this type of seizure are those – there is a risk of damaging the equipment, harming the persons unrelated to the crime and there is a risk of interfering with activities unrelated to the crime.

Seizure by copying the entire memory contents demands special equipment that can be used to create an exact duplicate of the memory contents of the electronic equipment, digital storage media on an external storage medium. This seizure is suitable in cases where there is a considerable amount of equipment in scene of crime. It can be used when there is risk of high financial or other loss caused by seizure of equipment and when the confiscation is not necessary for presentation in court.

Operating systems and other programs frequently alter and add to the contents of electronic storage. This may happen automatically without the user necessarily being aware that the data has been changed. In order to comply with the principles of computer-based electronic evidence, wherever practicable, an image should be made of the entire target device. Partial or selective file copying may be considered as an alternative in certain circumstances e.g. when the amount of data to be imaged makes this impracticable. However, investigators should be careful to ensure that all relevant evidence is captured if this approach is adopted. In a minority of cases, it may not be possible to obtain an image using a recognized imaging device. In these circumstances, it may become necessary for the original machine to be accessed to recover the evidence. With this in mind, it is essential that a witness, who is competent to give evidence to a court of law, makes any such access. It is essential to display objectivity in a court, as well as the continuity and integrity of evidence. It is also necessary to demonstrate how evidence has been recovered, showing each process through which the evidence was obtained. Evidence should be preserved to such an extent that a third party is able to repeat the same process and arrive at the same result as that presented to a court.

Advantages of seizure by copying the entire memory contents are following – little risk of damaging the equipment, harming the persons unrelated to the crime in question, interfering with activities unrelated to the crime in question, and digital evidence can be analyzed in a controlled environment. The disadvantages of this type of seizure are following – special equipment is needed at the crime scene, digital forensic expert is necessary at the scene. Also, there is a risk of overlooking a part of evidence and losing them for further procedure. This type of seizure is time consuming and relevant equipment is not analyzed at the lab in controlled environment.

Seizure by confiscating the backup storage media could be done in cases where there is very large amount of equipment and digital evidence to be examined, for example large networks or mainframe environments.

The advantages are similar to those for a seizure by coping entire memory contest, especially that is no risk of damage or harmful actions. Also, there are some additional advantages – no special equipment is required at the crime scene, it is not time consuming because there is no copying process of digital evidence at a crime scene. Of course, there are some disadvantages when using this type of seizure – support of digital forensic expert and system administrator is usually necessary, is a risk of overlooking a part of evidence and losing them for further procedure and the relevant equipment is not analyzed at the lab in controlled environment.

Seizure by selective data copying is type of seizure that should be used only in some circumstances when none of the previous types of seizure of digital evidence are possible. Using seizure by selective data copying only the most relevant digital evidence is copied for a further analyzes at the lab by digital forensic expert. During the whole process of seizure, from sizing the digital evidence, its packing and transport to arriving in lab for analyzes, digital forensic experts support is obligatory. For copying digital evidence use of seizure disk/CD is needed. The advantages and disadvantages are similar to those for a seizure by confiscating the backup storage media. Additional disadvantage is that any historical reconstruction of the computer system would be impossible and that represents the limit of investigation and digital evidence integrity. Furthermore, special care must be taken to preserve digital evidence integrity that is seized in this way.

TEAMING FOR CRIME SCENE PROCESSING

Whenever possible and practicable, thought must be given to the potential availability and nature of computer-based electronic evidence on premises, prior to a search being conducted. Investigators may wish to consider the use of covert entry and property interference in more serious cases, particularly if encrypted material is likely to be encountered. The appropriate measure proscribed by the CPC must be taken (in old CPC that was article 504e, but now it is art. 166). Consideration must also be given to the kind of information within and whether its seizure requires any of the special provisions catered for in CPC. In Serbia, when seeking a search warrant through the relevant Judge, the warrant application should clearly indicate what electronic evidence is anticipated and which persons are required to expedite the recovery and seizure of that material.

Pre-search

When a search is to be conducted and where computer based electronic evidence may be encountered, preliminary planning is essential. As much information as possible should be obtained before and about the type, location and connection of any computer systems. If medium or large network systems are involved and are considered a vital part of the operation, then relevant expert advice should be sought before proceeding. Single computers with an internet connection are those most commonly found and can usually be seized by staff that has received the basic level of training in digital evidence recovery. The IT literacy of the suspect and the known intelligence should be considered in any risk assessment/policy decision, in relation to calling in specialist assistance or seeking specialist advice pre-search. This is to be done by pre investigative measures as tailing the suspect, gathering information and cetera.

Briefing

It is essential that all personnel attending at the search scene be adequately briefed, not only in respect of the intelligence, information and logistics of the search and enquiry, but also in respect of the specific matter of computers. Personnel should be encouraged to safeguard computer based electronic evidence in the same way as any other material evidence. Briefings should make specific mention, where available, of any specialist support that exists and how it may be summoned. Strict warnings should be given to discourage tampering with equipment by untrained personnel. It should be done by using visual aides to demonstrate to searchers the range of hardware and media that may be encountered.

Preparation for the search

Investigators should consider the following advice given by working group, when one is existing or is formed (within the unit), when planning and preparing to conduct searches where computer equipment is known or believed to be present. Depending upon availability, persons trained and experienced in the seizure of computer equipment (existing in the group) may be in a position to advice investigators.

What to take

The following is a suggested list of equipment that might be of value during planned searches. This basic tool-kit should be considered for use in the proper dismantling of computer systems as well as for their packaging and removal: Property register, Exhibit labels (tie-on and adhesive), Labels and tape to mark and identify component parts of the system, including leads and sockets, Tools such as screw drivers (flathead and crosshead), small pliers, wire cutters for removal of cable ties, A range of packaging and evidential bags fit for the purpose of securing and sealing heavy items such as computers and smaller items such as PDAs and mobile phone handsets, Cable ties for securing cables, Flat pack assembly boxes - consider using original packaging if available, Colored marker pens to code and identify removed items, Camera and/or video to photograph scene in situ and any on-screen displays, Torch, Mobile telephone should not be used in the proximity of computer equipment.

Who to take

If dealing with a planned operation and it is known that there will be computers present at the subject premises, consideration should be given to obtaining the services of personnel who have had special training and are competent to deal with the seizure and handling of computer-based evidence if not present in the team for CSI or seizure of evidence. In some circumstances, the case officer may feel it necessary to secure the services of an independent consulting witness to attend the scene of a search and indeed subsequent examination.

Records to be kept

In order to record all steps taken at the scene of a search, consider designing a pro-forma, which can be completed contemporaneously. This would allow for recordings under headings such as: Sketch map of scene, Details of all persons present where computers are located, Details of computers - make, model, serial number, Display details and connected peripherals, Remarks/comments/information offered by user(s) of computer(s), Actions taken at scene showing exact time. It should be remembered, a computer or associated media should not be seized just because it is there. The person in charge of the search must make a conscious decision to remove property and there must be justifiable reasons for doing so.

Interviews

Investigators may want to consider inviting trained personnel or independent specialists to be present during an interview with a person detained in connection with offences relating to computer-based electronic evidence. There is currently no known legal objection to such specialists being

present during an interview and it would not breach the principles referred to in this guide. Any such participation by a specialist may affect his/her position as an independent witness in court. The use of technical equipment during interviews may be considered, in order to present evidence to a suspect. There is no known legal objection to evidence being shown to a suspect in such a fashion.

In creation of crime scene processing team, it is greatly important to have all possible problems that could emerge at the crime scene in mind. In that course it is important not to go into details, but to have most of the problems covered by the expertise of those individuals but of course not all. Why? Because of the costs of that kind of investigation of the crime scene. Those would be of great importance to all of the stake holders, but also of their interest would be costs of ill investigation without proper courses and trainings for those CSI personnel. This could be done in a few different manners: the strong arm of leader such as leaving them in "Competing for Quality" or "resource Accounting and Budgeting" as it was done in late seventies of XX century by Margaret Thatcher in Great Britain. Or it could be done in a manner done in nineties by the Clinton named as "National Performance Review" in New Public Management. So when speculating about building the team for CSI it is common for Serbian scientists to state that personnel for that job should consist of investigating Judge and police personnel with forensic education. It is proscribed, by the criminal procedure code (CPC) that the mentioned judge is obligatory to conduct Crime scene processing, and it is common for him (or her) to have additional help from the police (forensic and operational criminalistics experts). But in reality it is very often that the police is conducting CSI without judge (in law terms it is possible when the judge is not available and when crime that occurred is not serious, and that would be when proscribed sentence for that specific crime is up to 10 years of prison), and in praxis it could be considered as a rule. So there are two possible case types that could be deduced here – serious and not so serious crimes. All of them can be at stake at different in requirements for the job, and all of them also could be transient, because of possibility of judge taking over once started CSI by the police. Anyway first we should examine the team which should consist of judge and police specialists. First when we examine judges and their competencies for the job, we could find that education done by the state for their knowledge acquiring needed for this job is not satisfactory one. In basic education, for judges, it has been done by law faculties around the state and mainly public or state run, faculties, very small number originating from private universities. Further knowledge gaining is led mainly by judges alone and structural on the job training but only solely, except educations and courses organized by judicial academy, state run facility within Ministry of justice (MOJ). However this is not enough for gaining knowledge and skills about all that is required in CSI with specific topics including cyber crime and digital evidence. Next step is for CSI personnel within Ministry of interior (MOI). MOI has a few facilities capable to deliver specialized knowledge, COPO Center as a center for basic police training, and Academy for criminalistic and police studies (ACPS), also there are many trainings organized by MOIs department for education in whole range of specialities. There are structured trainings on the job and in the course of work organized for police personnel in order to achieve permanent training and development of police members. Right there lays maybe the strongest reason for preserving as a rule performance at the crime scene by the police, and as an exception of the rule a judge with the police help, at least within the boundaries of the law – the crime with proscribed penalty up to 10 years of prison.

When elaborating creation of the teams for this job, it is important to conclude that it is necessary to have professional management in public sector, especially in Courts and Police. It is of great importance to have explicit standards and performance measurement for creating teams for CSI and their evaluation while performing those acts. In that order it is of exquisite importance to point out of more enforce exit control of those results made by that teams. Those results are not to be formally measured but qualitatively. It should be done without exception. Also it should be done that way that it creates some kind of competitive environment, because competitiveness sharpens the edge of quality. It must be done also in a manner which gives the accent on business models of management. And in the end this should be done in a way which straightens discipline and gives cost effective results. Basic model is led by performance management, oriented to consumers of the services – firstly citizens in the end (their rights and liberties), also the results of those teams must be revised and controlled. In the future there must be considered some ways in outsourcing of special parts of that job to other stakeholders. In this manner there should be different levels of competitiveness, led by strategies of competitiveness.

In this way we can achieve results in educating people within MOI, and MOJ, special education in a manner of training, courses etc. done in a course for permanent education of all members. Also it is of great importance to make or create a system and maintain it for achievement measuring and creating a healthy competitive environment, not leaning on sanctions or something similar, but competitive mean.

Here we can also implement change management tools consisted in: people change – their attitudes, values, beliefs, expectations, behavior; structure change – authorities, control range, job description; and technology change – equipment, processes, procedures, working methods.

HOW THIS IS GOING TO BE DONE

First of all we need to change the way people are thinking in this area. We need to implement various tools in creating the right environment for implementation of mentioned methods and techniques. Both presented types of teams are at the end the same – legally demanded by the education and expertise – in general. But how we can change or add something of qualitative elements in that matter? When we analyze the needs and demands for proper job functioning in both ways we are getting satisfiable results in the end, but that is not the aim in the future of CSI job. We have to create viable and scientifically backed rules and standards in this matter, so we can get tangible results in it. Those standards and rules are already deductible from presented problems. First we have to create adequate rules for those job positions: For the police officer who should be working at the position of CSI inspector, he (or she) has to have experience in the field of at least 3 years in CID, and preferably law faculty or ACPS finished as basic education. Also there is a need for that kind of personnel to be educated through forms of trainings (on or off the job training) in CSI processing – Crime technician or forensics training, and also in further training for preparedness, those police members must be trained in finding, preserving and handling digital evidence at the crime scene. All of those presented specific knowledge could not be delivered through regular education, but must be specific and case oriented, with particular accents in specific fields. The best practice in that matter is that those trainings should be done by combined experts with practical knowledge and knowledge of specific problems in particular areas, and also with academic knowledge. In that way this training would give proper skills and knowledge mixture needed by professionals in this field. And for the expert in this area we need somebody who is much more familiar with the electronic devices than he is educated in legal procedures. So in that course that could be for example someone with Faculty of Electrical Engineering or from other similar field with secondary forensic and law academic education, and admissible certificates from distinguished organizations in this field of science and profession.

For the judges who should attend the position of Investigative judge in course of legal counts of actual CPC in act for common criminal procedure, from 2002. at least up until 1. October 2013. when new CPC would be fully at force there would be in the jurisdiction of Investigative judge Crime Scene processing (CSP) in order to collect digital evidence. After this date there will not be Investigative Judges by the law and CSP activity would be in Public prosecutor's (PP) powers. By new CPC it will be one of the legally proscribed powers of the Public prosecutor and his deputies.

Well for all mentioned, there are two different conditions for job positions – basic education and other conditions which differ for judges and prosecutors. Here we will first explain basic education. For all of mentioned positions – judges, prosecutors and their deputies the main education is without exception Law faculty, and bar exam passed. Other conditions vary for those positions. For the judge, according to the Law of judges[4] article 43-45. is that he or she is a Serbian citizen, and for basic Court Judge – 3 years of experience and for Higher Court – 6 years of experience (10 – for Appealing Court and 12 for Supreme Court) after the bar exam. For all judge positions also there are certain additional terms consisted of: expertise knowledge, worthiness and qualification, all taken account when electing a judge, by High Judicial Council and Parliament of Serbia. Parliament first elects Judges for 3 years and after that period High Judicial Council elects them at permanent function. Permanent education is judge's duty, and

4 Official Messenger of Republic Serbia "Sl. glasnik RS", br. 116/2008, 58/2009 - odluka US, 104/2009, 101/2010, 8/2012 – decision of Constitutional court, 121/2012 i 124/2012 - decision of Constitutional court

also Judiciary Academy as MOJ's educational facility takes care of that. This is done similarly to MOI's permanent education of police officers. This facility also takes care of PP and their deputies. For the prosecutors and their deputies additional conditions for election are: 4 years of experience after the bar exam for prosecutor and 3 years for deputy in the Basic Court, and 7 years for prosecutor and 6 years for deputies of Higher court (10(8) for Appealing Prosecutors office 12(11) Republic prosecutors office) according to article 77. of the Law of Public prosecutor's office. Procedure of election is slightly different for those two – PP's are elected by the parliament at Governments proposal from the list which creates State Prosecutorial Council for 6 years and with possibility of reelection, and deputies are for the first time elected for time of 3 years and after that period State Prosecutorial Council elects them permanently.

When we examine presented we can conclude that those education and training activities are to be implemented for all actors of seizure of digital evidence, and that it is strategic decision for the state and other stakeholders to team up in that course different people from different state agencies. Just for that there is a need for strategic planning in HR in those specific areas.

CONCLUSION

The best case of seizure would be if the digital forensic expert could arive at the crime scene, so he could be the one who will identify and seize equipment on which digital evidences could be found and in that way avoid any possible evidence tamper or loss. However, that is rarely the case. One of the mean to provide digital forensic expert at crime scene is by knowing in advance that there would be found relevant digital evidence which is of great importance for further procedure and that seizing of these digital evidence without his (or her) presence would be much more difficult. In most of the cases, identification and seizure of digital evidence is done by law enforcement officers, which means that they are in charge of identifying, documenting, seizing, packing and transporting the digital evidence to the lab. As presented in the future within the power of PP will be CSP and the sole procedure of CSP would then be in the course that he (or she) is leading. In that way the role of expert is diminished by PP power, of course it is the same now in police acting but everything said has different tone within of powers of PP in new CPC proscribed pre investigative procedure. In the lab, in that controlled environment digital forensic expert is in charge of analyzing the digital evidence. To be able to successfully identify, document, seize, pack and analyze the digital evidence, who will have evidence integrity at court, all law enforcement officers, especially those who are working at the crime scene investigation, must be properly educated. This education is crucial because it helps to avoid overlooking, damaging or harming in any other way the digital evidence which is needed at the court. This is also true for all other actors in this possible acting with digital evidence, PP, PP's deputies, and investigative judges. That is why it is needed to respect and follow the rules and procedures of seizure, documenting, packing, transporting and storing the digital evidence. It is also important to note that development of new technology must be followed and law enforcement officers must be informed and up-to-date with new devices, its performances, digital evidence that they may store, special ways of their seizure, how they are packed and transported to the lab. The most tangible and volatile of all in this problem is how to make a good team for seizing this type of evidence. All presented should be addressed when thinking and doing in order to create those teams in the future. That shall be done at strategic level – State and ministries, but also within the specialized departments of police Public prosecutor's office and Investigative judges departments.

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PROBLEMS AND DEFICIENCIES IN A PROSECUTION OF HIGH PROFILE POLITICIANS IN BOSNIA AND HERZEGOVINA

Marija Lučić-Ćatić, PhD
Dina Bajraktarević, MA
Edita Hasković
Faculty of Criminal Justice and Security, University of Sarajevo

Abstract: The study conducted by the World Bank in 2009 reports that government of B&H including its judiciary system is ranked as least accountable among countries in the region. Even though judicial reforms created institutional conditions for independence of judiciary, number of structural and political problems still hampers effectiveness of B&H judiciary. Prosecution of high profile politicians represents one of the most problematic segments of B&H judiciary, a phenomenon that this research examines. Research is based on case study approach, which allowed in depth investigation of the processes and judgments of three cases of high-ranking politicians in B&H, namely *Dragan Čović*, *Edhem Bičakčić* and *Mladen Ivanić* all of whom held the highest positions in B&H Presidency or Council of Ministers and later in their respective political parties. The research examined why, in spite of strong evidence, these politicians are acquitted before the Court of B&H. Having in mind complexity of socio-political structure of B&H, it is evident that the existing problem of inadequate prosecution of high profile politicians can cause serious public mistrust in impartiality, independence and transparency of judiciary system. Taking into consideration judiciary context in B&H this research recommends a policy option that does not require major change in B&H legal system or extensive additional resources.

Keywords: high profile politician, prosecution, Bosnia and Herzegovina, judiciary.

INTRODUCTION

Although for over twenty years Bosnia and Herzegovina (B&H) has been making efforts to strengthen democracy, one of the basic democratic postulates, the accountability postulate, has been missing from most of multilateral institutions, whilst obstruction of law is common occurrence in B&H. Study conducted by the World Bank (2009) reports that government of B&H is ranked as least accountable among countries in the region, including judiciary system. Although partial reform of judiciary has been enforced, with the aim to enhance the quality of court's work by raising it to the level of rule of law, the current situation is far from satisfactory.[1]

Important aspect of accountability is judicial independence as an element vital for courts to have capacity to fulfil their function of constitutional control, legal accountability, and justice administration (Pilar, 1999).[2] Lack of judicial independence is a problem recognized in the B&H judiciary system by the OSCE Program of Justice Sector Monitoring and Advocacy.[3]

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1 The situation is summarized by Gary D. Robbins (2010), Ambassador and Head of OSCE Mission to B&H: "Despite noteworthy progress, much remains to be done. The goal of a B&H justice system fully capable of upholding the principles of rule of law remains distant." It is in this context that the role of judiciary gains relevance in contemporary endeavors to acquire regime legitimacy and meaningful form of democratic practices. Furthermore, the judiciary is a key structure responsible for accountability and constitutional control. The issue of legal accountability should be addressed not only in terms of how effectively judiciary fulfills its function of rendering public officers legally responsible and accountable but the internal accountability of the courts should address as well (Schedler, Diamond &Plattner, 1999).

2 Autonomy of the courts and judicial independence are necessary to achieve impartiality in the task of adjudication and to ensure the advancement of the rule of law and effective legal accountability. The independence encompass political autonomy from other governmental branches what is essential in the quest for horizontal accountability. This is crucial to ensure that judge's decisions are not influenced by political considerations (Pilar, 1999).

3 Through this Program OSCE has monitored criminal proceedings before all courts in B&H since 2004, including the prosecution of the high-profile politicians and in 2009 the OSCE issues the following statement: "*OSCE B&H is deeply concerned about the nature of statements expressed by some prominent political representatives, particularly but not exclusively from the Republika Srpska, in relation to the work of the Court of B&H and B&H Prosecutor's Office. While the executive and legislative powers may legitimately scrutinize and comment on the functioning of the judiciary, the Mission's assessment is that these statements, due to their harsh content, unsubstantiated nature, and frequency, overstep the limits of acceptable criticism and constitute undue pressure on these independent institutions*."

Since then the practice of influencing political figures, especially the ones that were or are in trial in front of the Court of B&H, through media and other ways is continued. This is also examined by Azinović, Bassuener and Weber (2011) who argue that B&H judiciary is not free from political pressures or corruption. This highlights the question why most of the court proceedings against high-ranked politicians have resulted in acquittals. This question is a basis for a problem/question addressed in this research: are these acquittals grounded in sound legal evidence and to what extent politicization of the process played part in this.[4] Addressing this question is important not only for increasing transparency, but it is a vital in order to realize accountability trustworthiness and in making relevant information available for those who are interested to know what actually happened (Bemelmans and Videc, 2007).

METHODOLOGY

The research was organized using a case study approach with in-depth investigation of three high profile cases acquitted before the courts in B&H (Bičakčić, Čović and Ivanić).[5]Since the case study approach is useful in understanding particular issues in a greater debt it was suitable for undertaking comprehensive analysis of the court processes Bičakčić, Čović and Ivanić. Also, relevant provisions of the European Convention of Human Rights (EHCR) and Law of Criminal Procedure (CPC) were analyzed and their implementation in all three processes was measured. This study takes into consideration the specific nature of legal research, which allows researchers in legal field to make conclusions and recommendations based on the analysis of only few cases, as it has been done in this research.[6]

In addition to analyzing evidence the original plan was to conduct interviews with purposefully selected individuals with the key connection to the cases examined (Tonkiss, 2006).The people who were approached for the interview were: prosecutors and their assistants working on these cases and judges who presided the courts during the trial. However, even though we carefully explained the study in a non-threatening way we were not allowed to conduct a single interview with the prosecutors or their assistant who worked on those cases. Furthermore, despite the fact that we specifically followed the protocol provided in "Guidelines for access, publishing and disseminating of information in the possession and under the control of the Prosecutor office of Bosnia and Herzegovina" we were refused access to inducement in all three cases without any written explanation. This action of Prosecutor's Office of Bosnia and Herzegovina is contrary to the provisions of the "Law on Free Access to Information in Bosnia and Herzegovina".[7] In addition it shows poor attitude towards legal research and furthering knowledge in judiciary. It can also be understood as a tendency to prevent external assessment and evaluation.

Interviews conducted with judges who presided the courts during the trial and the other judges of the Section II of the Court of B&H provided key data for this study. The interviews were semi-structured qualitative interviews based on a series of open - ended questions and topics carefully prepared in advance. The questions were used to open discussion and provide further prompts, instead of restricting interviewees' responses (Brayman, 2004).[8] Since qualitative interview allows for investigation of sensitive topics (Byrne, 2006) it facilitated communication around sensitive issues related to the cases.

4 This paper is based on the results of a broad empirical study of prosecution of high profile politicians in B&H, which is a part of OSF B&H Policy Development Fellowship Program.

5 As an empirical inquiry case study approach is suitable for investigating a social phenomenon within its real life context and it permits the use of multiple sources of evidence (Yin, 1989).

6 In the sum of 326 court cases in front of the Court of B&H only 8 are processes against politicians and 6 of them were acquitted, one of them entered into a plea agreement and one was first degree convicted but only for a part of indictment. Therefore, this study chose three most prominent cases against political figures that can be classified as high profile because they performed highest functions in B&H Presidency, Council of Ministers or were at some point leaders of three major political parties. They are also representatives of three constitutional nations in B&H. Furthermore, in the rest of the cases defendants were delegate in the House of Peoples of the Parliamentary Assembly of B&H, Minister of Defense of FB&H and a member of the Presidency of B&H and two Assistant Secretaries of Defense of FB&H that are lower functions of those that were performed by the accused in chosen cases.

7 "Official Gazette of B&H" No. 28/00.

8 Semi-structured interviews are suitable for this kind of study, because they will allow interviewees, who are knowledgeable about the cases, to raise issues, bring in new ideas and add what they see relevant.

In analyzing the obtained data the research relied on thematic analysis (Miles and Huberman, 1994), complemented with content analysis where appropriate.[9] The validity of the research was achieved by using the strategy of triangulation, which is one of the most popular techniques in achieving trustworthiness of the results (Steinke, 2004). Interview data were complimented with analysis of the evidence used in the court. The corroboration of multiple techniques and sources of data will increase the validity and reliability of findings.

Furthermore, within this research we analyzed media reports connected to those trials and counted the number of harsh media statements of the influential figures of both Entities related to these trials. OSCE Mission in B&H considers harsh media statements of the influential figures related to trials to high profile politicians as a way of politicization of judiciary, so we took into consideration and this parameter.

JUDICIARY SYSTEM IN B&H

Since the establishment of B&H as an independent state (1992) until today legal and judiciary system of B&H was subjected to numerous changes. The year 2003 was marked by dramatic changes including court and prosecutorial restructuring, the adoption of new criminal and criminal procedure codes, civil procedure codes, and the formation of new judicial institutions. These newly formed bodies included the State Court – Court of Bosnia and Herzegovina, the B&H Prosecutor's Office, a single State High Judicial and Prosecutorial Council (HJPC), and Judicial and Prosecutorial Training Centres in the Federation of B&H (FB&H) and Republika Srpska (RS).

Furthermore on June 23, 2008 at the session of the Council of Ministers of B&H "Bosnia And Herzegovina Justice Sector Reform Strategy 2008–2012" (BH JSRS) was adopted with the objectives classified in five areas[10] and a set of agreed strategic programs and activities to build a better, more accountable and more effective judicial sector throughout B&H.[11]Regardless of this, "Mid-term Strategic Plan of The Ministry of Justice of Bosnia and Herzegovina for the period 2009 – 2011" (2010) does not deal with this problem.[12]

In identifying the problem this research was informed by earlier mentioned the OSCE Spot report (2009) that addresses the court processes of influential figures in B&H: "*Frequently, the Court of B&H and the B&H Prosecutor's Office has been the objects of attacks coming from political and other influential figures of both Entities, mainly in connection with investigations or trials conducted by these institutions against them*".

Up until today politicization of high profile political figures, especially the ones that were or are on trial in front of the Court of B&H, through media and other ways is continued even though most of the court proceedings against high-ranked politicians have resulted in acquittals and many of investigations against them never resulted with the indictment in a first place.[13]

9 Since content analysis runs the risk of ignoring context and multiple meanings, its combination with thematic analysis reduced this problem.

10 Those areas are: judiciary, execution of criminal sanctions, access to justice, support to economic growth and a coordinated and well-managed and accountable sector.

11 The issues concerning the judicial system in B&H that are addressed through this strategy have been divided into three sub-groups, and for each of these a number of strategic programs were developed. According to the Strategy, there are five main issues that fall under the sub-group "Independence and Harmonization" that are addressed through specific strategic programs, the first three of which relate to further protecting judicial independence.

12 However "Action Plan for the Implementation of the Justice Sector Reform Strategy in Bosnia and Herzegovina (2009 – 2013)" (2008) (B&H JSRS AP), as well as two revised B&H JSRS AP provides specific steps and activities for implementation of the objectives established in BH JSRS concerning independence and harmonization. These have been important achievements but out of all planned activities in the Strategic pillar one in the "Report on Implementation of the Justice Sector Reform Strategy in Bosnia and Herzegovina and its Action Plan For 2010" (2010) is evident that only 66,67 % of all planned activities is achieved. Therefore, it is evident that much remains to be done and that the B&H judiciary system is still far away from the postulates of independence and depoliticization.

13 Even a press release of the Transparency International B&H (2011) "Negligence and the frivolity of the judiciary in the case *Čović-Lijanović*" indicates that there are some serious problems and deficiencies in the prosecuting high-ranked politicians in B&H. Furthermore, the press relies states that "Besides showing neglect and frivolity of judicial institutions in B&H, especially in the case of abuse of position on the highest level, these and similar cases further waste trust of the citizens in the judiciary, and that is why only urgent investigation into this case and sanctioning of those responsible for these extremely serious omissions can lead towards the regaining of public confidence in the judiciary. The fact that criminal investigations against high-ranking political and government officials in B&H last for years, without results, certainly does not provide the

The politicization of the judicial system of B&H is also visible through the information of the Center for Investigative Journalism (CIN) from Sarajevo according to which the 40 original documents from the prosecution record in the case *Čović and the others* during the correspondence between the Prosecutor's Office (B&H), the Court of Bosnia and Herzegovina (B&H) and the Prosecutor's Office of the Canton Sarajevo (KS) has disappeared.[14]

Independence and depoliticization of the judiciary is generally recognized as a fundamental principle of international human rights law, including several international instruments.[15]Bearing in mind all the above mentioned as well as the complex political structure of B&H it is evident that the urgent action for the improvement of prosecution of high profile politicians, as a part of the broader process of depoliticization of judiciary system in B&H is vital and necessary.

ANALYSIS OF KEY FINDINGS OF A RESEARCH

As previously stated, this research started with the case study analysis of the indictments, court processes and verdicts of three processes against high profile B&H's politicians. From the sum of all 326 processes in front of the Court of B&H we chose those three cases because all the accused at the time of indictments performed high level government functions and are from the ranks of constitutive nations.

Charged and acquitted: background on the cases

Dragan Čović and the others (Lijanović, Čović, Lučić, Tadić) during 2006 were accused in front of the Court of for several criminal offences.[16]After a first-degree trial, Dragan Čović was found guilty for the criminal offence of Abuse of office or official authority in violation of Article 358(3) of the CC of FB&H[17]and sentenced to five years in prison, while the others were acquitted of all charges. After the appeals of the Prosecutor's Office and the Defence Council for the first accused Dragan Čović have been granted, The Appellate Division revokes the Verdict of the Court of Bosnia and Herzegovina No. X-K-05/02 of 17 November 2006 due to the essential violations of criminal proceedings and ordered a retrial before the Panel of the Appellate Division of Section II for Organized Crime, Economic Crimes and Corruption of the Court of B&H (Section II) for Čović and Lijanović, and confirmed the acquittal for Tadić and Lučić.

At a second-degree trial, all charges were dismissed. Namely, by the Counts 1 to 3 of the Amended Indictment of the B&H Prosecutor's Office No. KT-277/04, 15 November 2008 Dragan Čović was accused exclusively only for the criminal offence of Abuse of office or official authority in violation of Article 358(3) of the CC of FB&H. A Panel of the Appellate Division found that the Court of B&H does not have jurisdiction due to the fact that Amended Inducement is charging the accused only for the criminal offence from the CC of FB&H, without invoking the Article 13 of the Law on Court B&H (LoCB&H).[18]

development of public confidence in the work of judicial institutions. Having in mind the catastrophic criminal policy of the courts in B&H, which adjudicated only a few cases of corruption, and in the 2/3 of them make conditional judgments, and that according to latest figures issued, there were only 9 judgment in cases of corruption in a year, it is clear that the prosecution of corruption in B&H is still an acute problem." (Transparency International B&H: Negligence and the frivolity of the judiciary in the case *Čović-Lijanović*, March 2011)

14 See: Missing evidences in the case *Čović-Lijanović*, Center for Investigative Journalism, 2011.

15 Such as the International Covenant on Civil and Political Rights (ICCPR) adopted 1966, the European Convention on Human Rights and Fundamental Freedoms (ECHR) adopted 1953, and OSCE human dimension commitments. This principle is also enshrined in the Constitution of B&H, which recognizes the direct applicability of the ECHR and its priority over all other national law. According to the UN Basic Principles on the Independence of the Judiciary (Principle 1 and 2), *"it is the duty of all governmental and other institutions to respect and observe the independence of the judiciary…"* States should take any specific measure necessary for guaranteeing the independence of the judiciary, therefore protecting judges from any form of political influence in their decision making (Human Rights Committee, General Comment N. 32 on Article 14, 23 August 2007, Para. 19).

16 Criminal offences of Organized Crime referred to in Article 205 of Criminal Code of B&H in conjunction with criminal offence of Abuse of Office or Official Authority (Article 358(3) of Criminal Code of FB&H), Giving Bribe (Article 363 of CC of FB&H), Giving Gifts and Other Forms of Benefit (Article 218 CC of B&H), Abuse of Office or Official Authority (Article 220(3) of CC of B&H), Abusing Position of Paver in Economy (Article 259(2) of the CC of FB&H), Forging Documents (Article 351(3) of the C of FB&H) and a Tax Evasion (Article 272(2) of the CC of B&H) (*Dragan Čović and the others* first degree verdict X-K-05/02, 17 November 2006; second degree verdict X-KŽ-05/02, 02 June 2008).

17 "Official Gazette of the FB&H" No. 43/98.

18 "Official Gazette of the B&H" No.16/02.

In the case *Edhem Bičakčić and others*[19] under the Indictment of the Prosecutor's Office of Bosnia and Herzegovina number KT- 396/05 dated 17 April 2009, confirmed by the Preliminary Hearing Judge on 23 April 2009, Edhem Bičakčić and Dragan Čović were charged with the commission of the continued criminal offence of Abuse of Office or Official Authority in violation of Article 358(3), in conjunction with Article 23 of the FB&H CC and after a first degree trial in front of the Court of B&H were acquitted of all charges. After the B&H Prosecutor Office appeal[20] Panel of the Appellate Division of Section II found the appeal ungrounded and therefore rejected it.

In the case *Mladen Ivanić* under the Indictment of the Prosecutor's Office of Bosnia and Herzegovina number KT- 293/06 dated 10 October 2007, confirmed by the Preliminary Hearing Judge on 22 October 2007, Mladen Ivanić was charged with the commission of several criminal offences.[21]After the first instance trial he was found guilty for the commission of the criminal offence of Negligent in Performance of Duty[22] and sentenced to one year and six months in prison. After the appeal of the Defence Counsel has been granted, The Appellate Division revokes the Verdict of the Court of Bosnia and Herzegovina due to the essential violations of criminal proceedings and ordered a retrial before the Panel of the Appellate Division of Section II. At a second degree trial with the Amended Indictment of the B&H Prosecutor's Office No. KT-293/06, 12 May 2010 Mladen Ivanić was accused exclusively only for the criminal offence of Negligent in Performance of Duty[23]and after the trial all charges were dismissed.[24]

Through the analysis of those processes (as well as thought the interviews), we noticed several inconsistencies in significant legal matters which will be addressed in sections that follow.

ISSUES IDENTIFIED BY THE JUDGES FOR PRELIMINARY HEARING

All judges who were interviewed pointed out that their work as judges for preliminary hearing represents the problem of a general nature, which is especially displayed when it comes to the prosecution of high profile politicians. Namely, according to current organization of the court's work, one of the regular duties of all judges is working on the indictments as judges for a preliminary hearing. In most cases, those preliminary hearings are assigned to them in the middle of other cases in process on which they work as a presidents or members of panels. The judges stated that due to their workload and lack of time they do not pay proper attention to preliminary hearing because they believe that even if they approve the indictment that should have not be approved the corrections can be made during the main trial.

During the interviews the judges attempted to justify this practice, but it must be noted that this practice is against the principle of effectiveness and cost efficiency of courts. This should not be a common practice particularly taking into account public and media interest for those cases and possible political manipulation.

EVIDENCES

By examining the variables quality and types of evidences used in those three cases we found few problems as well as inconsistencies. Even though the usage of evidences presented below does not represent violation of justice and are question of prosecutors' and judges' discretionary right, this type of inconsistencies in a similar type cases was analyzed.

19 *Edhem Bičakčić and Dragan Čović* first degree verdict X-K-09/702, 8 April 2010; second degree verdict X-KŽ-09/702, 31 January 2011.
20 X-K_09/702, 08 April 2010.
21 Abuse of Office or Official Authority (article 337(4) of CC of RS), Criminal enterprise (Article 370(1) of CC of RS), Abuse of Office or Official Authority (Article 337(4) of CC of RS in connection with Article 24 of CC RS) and Giving Gifts and Other Forms of Benefit (Article 218(2) of CC B&H).
22 Article 344(2) of CC RS.
23 *Ibidem*.
24 Mladen Ivanić X-KŽ-06/282-1, 16.July 2010, second-degree trial.

Primarily, in all three cases usage of personal evidences is prevailing, especially statements of the witnesses.[25]Few problems with the use of witnesses' statements in all processes are identified. Furthermore, the common problem was the credibility of the witnesses brought into question during the trials. Key witness in the case *Čović and others* was discredited because of his lack of credibility. Some of the witnesses' statements in the case *Bičakčić and Čović* were not considered as a proven beyond reasonable doubt because from the time that alleged criminal offence took place and the time of their testimony ten years have gone by.[26] This shows that the criteria for the selection of the witnesses are not adequate and should be precise and clear. The prosecutor should take those problems into account when preparing their indictments. Indictment with flaws, especially in cases of high profile politicians, beside cost efficiency, raises public doubts in judiciary system and independence.

The second apparent problem is use of uncertified copies of the documents (material evidences). According to the Article 274(2) CPC B&H: *"to prove the content of writing, recording or photograph, the original writing, recording or photograph is required, unless otherwise stipulated by this Code*". Furthermore the paragraph 3 states: "*Notwithstanding Paragraph 2 of this Article, a certified copy of the original may be used as evidence or the copy verified as unchanged with respect to the original.*" It has been identified that this provision has been misused and inconsistently interpreted in all three cases raising issues what was the motivation for such malpractice. One of two key material evidences in the case *Čović and others* was not taken into consideration even though it could be verified as unchanged through the testimony of the witnesses.[27]

In the case *Bičakčić and Čović* the use of uncertified copies of the documents was resolved differently. *'At the beginning of the evidentiary proceedings, the Court refused that the disputed decisions of the Government of the Federation B&H V. No. 4/99 dated 18 January 1999 and V. No. 5 /00 dated 20 January 2000 is either presented or tendered, since the Prosecution provided only copies of these decisions, without any indication as to the credibility of such documents… the Court did not allow the adducing of such evidence. Also, the aforementioned provision of the Law allows a possibility to otherwise authenticate documents, which the Prosecution made use of only later, by enclosing the two disputed decisions to the original Record on the examination of the suspect Edhem Bičakčić, who was presented with the alleged decisions of the Government during his interview, and who confirmed their existence. As an enclosure to the authentic Record on examination of the suspect Bičakčić, contested decisions were accepted by the Court and admitted into the case file, as well as the entire body of prosecution evidence, following the classification of evidence in writing, upon Court's order, whereby uncertified copies were marked separately and singled out, aside the adduced index containing the name and date of each document'.*[28]

A need for uniform and strictly observed jurisprudence on this matter is an imperative for the prevention of the politicization of judiciary system of B&H and to raise public trust.

JURISDICTION OF COURT OF B&H

This study identified significant inconsistence in prosecution of high profile politicians in B&H is regarding the question of jurisdiction of the Court of B&H. In all three examined cases, the jurisdiction of the Court of B&H is brought into question and resolved inconsistently.

In the case *Čović and others*: *"The Court notes that under the Amended Indictments of the prosecutor's Office no. KT-277/04 of 29 May 2008, the accused Dragan Čović has been charged with the commission of the criminal offence Abuse of Office or Official Authority in violation of Article 358(3)*

25 According the CPC personal evidences are statements of the witnesses, statement of the expert witnesses and statements of the accused.

26 *"Generally, testimonies of all witnesses heard were not evaluated by the Court as fully credible or particularly useful for evidentiary proceedings, considering that it has been ten years since the incrimination, which resulting in uncertainty in recollection, even partial internal and mutual contradictions in witness testimonies. Therefore, subjective evidence was verified by comparison and confrontation with ample documentary evidence, which in the opinion of the Court has incomparably greater probative value."* (X-K-09/702, 8 April 2010).

27 *"At the main hearing, the Court was presented with the Exhibit of the prosecution No. 53-a photocopy of the document No. 01-16-2631/00 of 23 June 2006. Given that it was an unverified copy of the said document and that the prosecutor did not manage by the end of a main trial to obtain the original document or a verified copy thereof under Article 274 of the CPC of B&H and that the defense placed objections as to the lawfulness of this piece of evidence, the Court did not take this piece of evidence into consideration when deciding in this criminal case.*" (X-K-05/02, 17 November 2006).

28 X-K-09/702, 8 April 2010.

of CC of FB&H… The Panel is satisfied that the Court of B&H is not competent to adjudicate on this criminal matter, since the criminal offence the Accused has been charged with is not within this Court's jurisdiction, nor did the Prosecutor himself invoke Article 13 of LoC B&H in the Amended Indictment. Accordingly, under the final and amended indictment, the Prosecutor charges the accused Dragan Čović exclusively and only with the criminal offence set forth under Article 358(3) of CC FB&H, which is at the Prosecutor's free will pursuant to Article 275 of CPC B&H when he/she evaluates that the presented evidence indicates a change of the facts presented in the indictment."

In the case *Bičakčić and Čović* the Court took a different attitude and declared itself competent: *"During the entire proceedings, the defense teams disputed the jurisdiction of the Court. Provisions of Article 7 of the LoC of B&H lead to a conclusion that the primary jurisdiction of the Court was extended in order to ensure effective protection of the general and public interest, and protection from consequences of criminal offences stipulated by the entity codes, provided that the circumstances of the commission of the criminal offence point to a particular level of threat to social values – the very foundation of the structure of the state authorities. Cited Article of the Law sets forth relatively vague terms, which have been reviewed through objective circumstances of individual cases, to a certain extent defined in jurisprudence so far. In consideration of the issue of subject matter jurisdiction, the Court was guided by specific circumstances that may concern certain essential elements of the criminal offence, including the amount of the unlawfully obtained property gain, the degree of damages incurred to a legal entity where a perpetrator has the status of an official person or person with official authority, the amount of gain that the third party obtains through acts of abuse, as well as the position of official person in the government structure at the time of the commission of the crime. Top ranking position of the accused as officials in the government structure at the time of the commission of the criminal offence was one of the decisive factors in establishing the jurisdiction of the Court of B&H on the grounds referred to in Article 13(2)(b) of the LoC B&H. Contrary to the positions of respective defense teams, the foregoing do not mean that the essential elements of the criminal offence have been hereby extended, thus allowing for the procedural law to intervene with the substantive law. The Court viewed the concrete circumstances of the case through the prism of Article 7 of the LoC B&H and rendered its decision on jurisdiction based on these and such circumstances."*[29]

In the case of Mladen Ivanić on a second degree trial, bearing in mind that by the Amended Indictment of the B&H Prosecutor's Office no. KT-293/06, 12 May 2010 Mladen Ivanić was accused exclusively and only for the criminal offence of Negligent in Performance of Duty[30]the Appellate Division primarily had to clear the question of the competence in this case. As in the case of *Bičakčić and Čović* the Court also declared itself competent but it offered different explanation as follows. *"… in a first degree trial Prosecutors' Office charged accused Malden Ivanić among the other offences and for the offence from original jurisprudence of this Court, and thus his authority was unquestionable. Meanwhile in a second degree trial Prosecutors' Office charged accused only for a criminal offence provided in a CC of RS. But regardless that fact, Appellate Division found the Court of B&H competent and in this moment of the process."* Namely, besides referring to the Article 7 of the LoC of B&H Appellate Division refers to the provisions of the Article 27(1) of the CPC of B&H.[31]Based on the above mentioned provisions, Appellate Division took the view that the Court of B&H has a certain supremacy regarding the others courts on the territory of B&H and can be considered as a higher court. For fully understanding of this question the provisions of the Article 36(2) of the CPC of FB&H and Article 34(2) of the CPC of RS[32] has to be taken into account.[33] Those provisions clearly show that the higher court has a priority in processing already started main trials. And finally in the verdict is stated that: *"Respecting all above mentioned this division consider that if the Court of B&H once had a jurisdiction in this matter it should keep its jurisdiction until the end of the trial. … This is consistent to the principles of efficiency and economy of the criminal proceedings considering that the many evidences were presented and that is a question of a same criminal offence that was the subject of previous first degree ruling, regardless the change of law qualification of the of the offence."*[34]

29 X-K-09/702, 8 April 2010.
30 Article 344(2) of CC RS.
31 In which is stated: *"If there are strong reasons, the Court may transfer the conduct of the proceedings for a criminal offense falling within its jurisdiction to the competent Court in whose territory the offense was committed or attempted. The conduct of the proceedings may be transferred not later than the day the main trial is scheduled to begin."*
32 Article 36(2) of the CPC of FB&H and Article 34(2) of the CPC or RS are identical.
33 Those articles are stating: *"If during proceedings the court finds that a lower court has jurisdiction over the case, it shall not transfer the case to the lower court but shall conduct the proceedings and render a decision"*
34 X-KŽ-06/282-1, 16. July 2010.

Even though the different opinions on court's jurisdiction are relatively normal and court decisions in many countries can be blatantly inconsistent in the case of Court of B&H and especially when it comes to the prosecution of high profile politicians this opens a window for possible political influence.[35]

STATUTE OF LIMITATIONS

Question of the statute of limitation arose in the case *Bičakčić and Čović*. Namely, as it is stated in the first degree verdict:[36]*"Considering that the acts of the accused, given the previously outlined reasons, cannot be defined otherwise than as an underlying offence from Article 358(1) of the CC of the FB&H, punishable by imprisonment in term from 6 months to 5 years; therefore pursuant to Article 121(1)(5) and Article 122(6) of the CC of the FB&H, an absolute statutory limitation to criminal prosecution is in effect given the lapse of ten years from the date of commission of the offence, that is, the day of rendering unlawful decisions, or more specifically, from 18 January 1999 and 20 January 2000. Thus, even under the assumption that the Prosecution succeeded to prove … the Court would have grounds to render either an acquittal under Article 284(a) or a verdict dismissing the charges on the basis of Article 283(e) of the CPC of B&H. Following the completion of the evidentiary proceeding, the Court rendered the decision pursuant to Article 284(1)(c) of the CPC of B&H".*

It is apparent that even if accused were found guilty the provisions of statutory limitations would disable enforcement of such conviction. Furthermore, conducting trials when statutory limitation is about to happen is contrary to the principles of efficiency and economy of the criminal proceedings and definitely opens a question of prosecutor's motivation for the indictment in a first place. This is especially true when processing a high profile politician and when special precautions should be taken because those trials raise large media attention and a lot of reactions of influential political figures.

POLITICIZATION THROUGH HIGH JUDICIARY AND PROSECUTORIAL COUNCIL (HJPC)

Another form of a possible political influence on judiciary system of B&H, politicization through HJPC is identified in the interviews with the judges. HJPC was established in a 2003 during comprehensive reform of judicial sector in B&H with a vision of continuously contribution to strengthening the rule of law in B&H. By ensuring an independent, impartial and professional judiciary in B&H, the HJPC provides for equal access to justice and equality of all before the law.[37]

If we take into consideration competences of the HJPC and the membership on the way it is prescribed in the Law on HJCP B&H[38] it is evident that there is a window for a possible political influence. Namely, according to the Article 17 of the Law on HJCP B&H, the Council among the other competencies has the sole competencies of appointment of judges and prosecutors, imposing disciplinary measures that without proper legal prevention can be politically manipulated. However, according to the Article 4(1)(i)(m)(n)(o) Law on HJCP B&H four members of HJPC are allowed to be members of political parties.

35 As it is stated in Prosecutors' Office media release related to the Court decision in the case *Čović and others*: *"It seems that this attitude depends on the composition of the Judicial Council and the names of the defendants"* (Nezavisne Novine of 16 Jul 2008).

36 X-K-09/702, 8 April 2010.

37 As a part of Strategic plan for period 2010 – 2013 HJPC B&H defined 9 strategic objectives: increase the efficiency of courts and prosecutor offices in B&H, improve and maintain independence and structure of B&H judiciary, continuously improve the system for the selection and appointment of judicial position holders, develop a base for future candidates for judicial and prosecutorial office, improve disciplinary procedure, advance the process for the preparation, lobbying, adoption and execution of adequate budgets for judicial institutions in B&H, advance training for judicial position holders, improve relationship of judicial institutions with partners and the public and further enhance coordination and aid effectiveness in the justice sector. See more on State High Judicial and Prosecutorial Council (HJPC), web site: http://www.hjpc.ba/intro/?cid=3479,2,1

38 "Official Gazette of B&H", No. 25/04.

All the interviewed judges pointed out that the HJPC performs very responsible and sensitive job which is visible from Article 17 Law on HJCP B&H and that the current provisions of the Article 4(1)(i)(m)(n)(o) is not in the accordance with the postulate of independency and depoliticization.

Reason for that attitude lays in the fact that one of the ways of judiciary depoliticization is a prohibition for the judges and prosecutors to be a part of any political party. According to the Section II Article 2. 2. 3 of the Code of Judicial Ethics and Section II Article 2. 2. 3. of the Code of Ethics for Prosecutors that are of equal legal force as laws judges and prosecutors "shall not be members of political parties…". Furthermore, similar provision in respect of members of HJPC is provided in the Article 10 of the Law on HJCP B&H.[39]At the same time Article 4(1)(n)(o) introduced political figures as a members of HJPC. These rules are illogical and its practical application can cause serious political interference to the work of the judiciary system and should be promptly resolved.

MEDIA STATEMENTS

In accordance with observations of previously mentioned OSCE Spot report "Independence of the Judiciary: Undue Pressure on B&H Judicial Institutions" (2009) this research analyzed media reports connected to those trials and counted the number of harsh media statements of the influential figures of both Entities related to these trials.

Three daily papers (Dnevni avaz, Oslobođenje and Nezavisne novine) and 3 weekly magazines (Dani, Start and Global) were analyzed as well as reports of Independent News Agency (ONASA) and Federal news agency (FENA) for the period when trials took place. During the analysis 328 media statements related to those trials were spotted. About 26% (85) of those statements contained harsh media statements of high ranked politicians of different levels of political powers that according to OSCE present undue political pressure and politicization of judiciary. Additional pressure for the Court of B&H comes from official statements from the Prosecutors Office of B&H given in daily papers.[40]

This number and content of those statements bearing in mind the fact that they came from political figures presents real and undue pressure on the judiciary sector. It is necessary to strengthen judicial sector and to revise all deficiencies in prosecution of high profile politicians so this type of pressure will lose its potential impact on the work of the Court of B&H.

CONCLUSIONS AND RECOMMENDATIONS

In a current situation in judiciary system in B&H the practice of improving the work of judges and prosecutors on all issues are trainings and education organized within Judicial and Prosecutorial Training Centers in the FB&H and RS.[41]It is evident that the trainings do not take into consideration issues related to the prosecution of high profile politicians, nor do these training critically examine those cases. Learning about interpretation of law can be beneficial if there are appropriate court policies and mechanisms to sanction legal malpractices. Taking into account previously explained state in a matter of a prosecution of high profile politicians in B&H it is obvious that the current situation in improvement of judicial practices (trainings of judges and prosecutors) is not functioning well and it does not meet requirements necessary for adequate prosecution of those cases.

39 According to that provision "Neither a member of the Council, nor a member of any panel thereof, nor any member of the staff of the Council, shall hold office or perform any duties in a political party, or in associations or foundations connected to political parties."

40 For examples regarding the jurisdiction by the Court of B&H in the case of *Čović and others* from the Prosecutors Office of B&H comes a statement that the practice of Court of B&H shows a lack of unified rule regarding jurisdiction: It appears that the ruling depends on the composition of the Court Council and names of the indicted. They further state that the prosecutor's Office of B&H cannot ignore that in another case some other judge refused as ungrounded objections of defense regarding authority of the Court of B&H to process the criminal offences stipulated by the CC of FB&H. From the Prosecutors office it has been said that they do not have explanation for these completely different decisions by different Council of Court of B&H regarding jurisdiction, arguing that their opinion is that the Court of B&H is competent for the case of Čovic as well (Nezavisne Novine 16 Jul 2008).

41 For further information on Judicial and Prosecutorial Training Centers and their training programs see the web sites of the Centers: http://www.fbih.cest.gov.ba/ and http://www.rs.cest.gov.ba/.

Appropriate mechanisms that could improve prosecution of a high profile politician in B&H that would directly contribute to the accountability of the B&H judiciary system and the level of public trust is a creation of a set of guidelines that can be used by prosecutors as well as judges for cases in front of the Section II of the Court of B&H. In long term, application of these guidelines can lead to the creation of a common and unified policy in prosecution in general as well as in prosecution of high profile politicians in B&H and ultimately contribute to a higher level of internal accountability of the entire judicial system. These guidelines should contain resolution of all problems identified through case studies in this research as previously described in the section of problem definition.

As to the question of the evidences used in front of the Court it has been noted that the most common problem present reliability of the witnesses used as a personal evidences and a question of usage of unverified copies of a documents. Therefore, the guidelines should suggest that the prosecutor when preparing the case should pay a special attention to the reliability of witnesses he is planning to use as evidences on a trial. Prosecutor should be aware of a fact of time passed since the alleged criminal offence occurred and a trial took place. The witnesses should be always adequately prepared as well as examined. If a prosecutor determines that the witness statement is contradictory or uncertain it should not be used in front of the Court. Furthermore, material evidences should be prevailing in the indictments since the *"… subjective evidence was verified by comparison and confrontation with ample documentary evidence, which in the opinion of the Court has incomparably greater probative value."*[42]

In addition use of uncertified copies of documents should be subsumed under the Article 274(3) CPC B&H. Prosecutor should before the indictment determine if there is evidence in support or an indirect proof to document's authenticity or other possibility to authenticate documents. If those possibilities do not exist the evidence should not be proposed as one in the inducement and inducement should be strong enough and without that evidence. Otherwise, if authenticity of the document can be proven indirectly it should be allowed as a proof.

On the question of jurisdiction guidelines should suggest unified policy on that mater. Since the prosecution of high profile politicians is extremely sensitive and it cause enormous public and media interest Court's jurisdiction should be determined in the accordance with the Article 7 and 13 of the LoC of B&H and Article 27(1) of the CPC of B&H. Based on those provisions it is evident that the Court of B&H has a certain supremacy regarding the other courts on the territory of B&H and can be considered as a higher court. Furthermore, the provisions of the Article 36(2) of the CPC of FB&H and Article 34(2) of the CPC or RS should be taken into account. Those provisions clearly show that the higher court has a priority in processing already started main trials. When deciding on a meter of jurisdiction Court should be always guided with those provisions, which will create unified practice.

The guidelines should also include instructions for prosecutors and judges that preliminary hearings should, when creating or confirming the indictment, always take into consideration statute of limitations. This is necessary because of the principles of efficiency and economy.

Beside those guidelines, for fuller depoliticization of judiciary system it is necessary to conduct certain changes in the Article 4(1)(i)(m)(n)(o) of the Law on HJCP B&H according to which 4 members of HJPC are advocates who can be members of a political parties. It is not sufficient only to rely on their professionalism and moral but it is necessary to completely forestall those possibilities by new legal provision.

Furthermore, in improving the courts work in general and especially prosecution of high profile politician, a certain number of judges in a preliminary hearing should be appointed for this function solely, with a rotation on a certain period.

Once created the guidelines can be adopted as obligatory and distributed to all judges and prosecutors by HJPC. The training centers can support implementation of this policy option by organizing trainings for judges and prosecutors on the guidelines. This policy option does not require significant additional resources and the capacities of already established bodies within the judiciary system in B&H, such as HJPC and Training Centers for Judges and Prosecutors in FB&H and RS can be utilized in implementing this policy option.

42 Edhem Bičakčić and Dragan Čović first degree verdict X-K-09/702, 8 April 2010.

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ANONYMITY OF INFORMANTS: DEVELOPMENTS IN SLOVENIAN CRIMINAL PROCEDURE

Assistant Professor **Primož Gorkič**, LLD
Faculty of Law, University of Ljubljana, Slovenia

Abstract: Making use of confidential human resources (informants) is an indispensable method of managing and conducting criminal investigations. The key to their cooperation is a guarantee their identity remains known exclusively to a select number of police officers. Prior to Constitutional Court Decision No. U-I-271/08 in March 2011, police and Minister of Interior had exclusive competence to decide whether to disclose protected information - including identity of informants - to other participants in criminal procedure, judges and prosecutors included. The cited decisions of the Constitutional Court were followed by amendments to Slovenian criminal procedure. As a result, the guarantee of informant's anonymity can no longer be upheld in all phases of criminal procedure, in all circumstances. The paper explores the impact of these developments, together with some of the implications for the application of data provided by informants in criminal procedure. In some instances, using information, obtained through informants, may no longer be possible.

Keywords: criminal investigation, informants, disclosure in criminal procedure, protection of personal data in criminal procedure, police, rights of defence.

INTRODUCTORY NOTES PUTTING INFORMANTS INTO CONTEXT

"The risk of being overheard by an eavesdropper or betrayed by an informer or deceived as to the identity of one with whom one deals is probably inherent in the conditions of human society. It is the kind of risk we necessarily assume whenever we speak."[1] These claims represent the gist of the argument in *Hoffa v. United States*, responding to arguments that informant use violated rights under Fourth Amendment, in short, the right to privacy. Even as they may seem self-evident, should not be taken lightly. It may seem obvious that a person cannot reasonably expect that information she discloses to others will not eventually end up with the police. Indeed, policing crime relies heavily on citizen's cooperation.

On the other hand, right to privacy should, among other interests, in principle protect the right to willingly, intelligently choose one's confidants and communication partners. It seems rash to equate casual eavesdropper's reporting to the police with an informer covertly cooperating with the police on a regular basis. Using informants to covertly and systematically collect information is therefore rightly treated together with other types of undercover operations or surveillance.[2]

Creating and using informants will therefore necessarily raise the issue of legitimacy of such investigative techniques. First, while the advocates of principles of democratic policing advocate transparency and accountability of modern police forces, using informants, surveillance or undercover operations inescapably undermines these very principles.[3] In short, informants undermine the institutional integrity of policing (organised) crime. And second, solving the problem of law enforcement integrity has to address the question of adopting essentially deceptive practices that undermine individual autonomy (privacy, self-determination).[4]

Both problems may be more of less successfully addressed by exploring the mechanisms of police oversight. Here, the broader issue will be judicial oversight of informant use. More specifically, the focus will be on the issue of informant's anonymity and possibilities of disclosing his identity to participants of criminal procedure other than the police.

1 Hoffa v. United States, 385 U.S. 303, citing dissenting opinion in Lopez v. United States, 373 U.S. 438.
2 E.g. Marx, 1988, p. 152 et seq.; Sharpe, 2002, p. 70-71.
3 For a Slovenian perspective on democratic policing principles in the context of fighting organised crime, see Gorkič, 2012, p. 109 et seq.
4 See the Constitutional Court of the Republic of Slovenia Decision No. U-I-272/98, 8 May 2003, putting undercover operations in the context of individual autonomy.

OUTLINE OF SLOVENIAN "INFORMANT LAW"

Slovenian legislation scarcely touches upon the issue of informants. Currently, there is no comprehensive definition of an informant. The term may be applied both to persons willingly assisting the police and to cooperating suspects or defendants that provide useful information to law enforcement authorities in criminal procedure.[5] This broad definition will also be the starting point of this outline. Later on, the focus will shift to confidential informants that covertly cooperate with the police by providing intelligence related to prevention or investigation of criminal offence.[6]

The term "informant law" will rarely, if at all, be used in the context of Continental criminal procedures. Here, the phrase will be used in the sense applied by Natapoff.[7] It denotes "the body of laws that defines the legal parameters of the relationship between informants and the government." According to Natapoff, informant law should focus on four issues: (1) creating and rewarding informants, (2) using informants as investigative tool, (3) defendant's rights with respect to informant use and (4) legal limits to government conduct.

The problem of informant's anonymity touches upon all of these issues. First, the guarantee of informant anonymity (in other words, that his identity remains confidential) will be essential when attempting to secure his cooperation. When in their "native" social environment, informants do not use false identities, while keeping their cooperation with the police a closely guarded secret. After criminal proceedings have been initiated, however, their cooperation with the police can hardly remain secret; their true identities, on the other hand, may remain confidential, providing anonymity of the informant to other participants of the criminal procedure. Second, the guarantee of informant's identity non-disclosure will motivate the informant to engage in collecting data for investigative purposes and secure his attendance as an (anonymous) witness at later stages of criminal procedure. Even more, keeping informant anonymous, his cooperation may extend beyond a particular criminal investigation. Third, keeping informant's identity from one or both parties to criminal procedure or even from the court, may substantially increase chances of fact-finding errors (at the risk of the defendant), since it reduces the chances of confronting the informant and verifying the information he provided.[8] It also means that the defendant will not be able to exercise his right to confront a witness for the prosecution, or at least he will be able to do so under severe handicap. And finally, keeping informant's identity confidential may reduce the chances to verify the legality and integrity of police conduct. Informant's anonymity seriously impedes the transparency of police conduct and their accountability, increasing the dangers of implicating law enforcement in criminal activity, undertaken by an informant.[9]

Slovenian legislation, case-law or jurisprudence has failed thus far to fully explore the implications of informant's anonymity. However, in order to assess the adequacy of the legal framework in force in Slovenia, it will be necessary to attempt a brief outline.

In addition, it may be useful to proceed by distinguishing between compensated and non-compensated informants; the latter receiving certain benefits in return for their cooperation with law enforcement bodies. The issue of compensation to the informant in exchange for his cooperation holds a central place in Natapoff's critique of US informant practices. It is central for the evaluation of informant's motives for cooperation, his trustworthiness and integrity of the entire criminal investigation and the criminal justice system.[10]

5 The introduction of plea bargaining into Slovenian criminal procedure, effective in May 2012, dramatically increases the room for gaining cooperation of suspects. Indeed, informants "working off" charges against them (by cooperating with the police and the prosecutors) are at the core of Natapoff's critical study of informant law and practices in the United States.

6 For an exhaustive definition of the term "covert human intelligence source", see Covert Human Intelligence Souces: Code of Practice (2010), p. 7: a person is a covert human intelligence source, it he establishes or maintains a personal or other relationship with a person for the covert purpose of (i) obtaining information or to provide access to any information to another person; or (ii) covertly disclosing information obtained by the use of such a relationship or as a consequence of the existence of such a relationship.

7 Natapoff, 2009, p. 45.

8 For suggestions for verification of information provided by informant, e.g. Grabosky, 1992, p. 60-61. Natapoff argues in favour of conducting special hearings to establish informant's reliability and to demand that information provided by compensated informants be corroborated (Natapoff, 2009, p. 194-197).

9 Grabosky, 1992, p. 49 et. seq. The cost of informant's criminal activity may, in some jurisdictions, be acceptable: see, e.g., Section V of Attorney General's Guidelines Regarding the Use of FBI Confidential Human Sources, on "otherwise illegal activity." See also Marx, 1988, p. 153-156.

10 Natapoff, 2009, p. 29 et seq.

Non-compensated informants

Under current legislation, the police may seek cooperation of informants for both preventive and repressive purposes. Without a specific reference to informants or confidential sources, the Police Act[11] in force at the time of writing allows for any individual to assist the police in its performance of lawful tasks (Art. 27 of the Police Act) that include both prevention and detection/investigation of criminal offences (Art. 3 of the Police Act). The Police Act made identity of individuals acting as sources of information to the police confidential by virtue of Art. 56, obliging police officers to keep the identity of the source of information a secret.

In criminal investigations, the police will act under the Criminal Procedure Act.[12] CPA has no reference to informants or confidential sources. The police, therefore, typically resort to their powers of seeking information from citizens when reasons for suspicion exist under the general investigative clause (Art. 148 CPA). The information provided by the informants will then be presented in a form of an official note that will remain on file. The police may, by virtue of Art. 56 of the Police Act omit any reference to the identity of the citizen that provided the information contained therein.

CPA does, however, hold several additional provisions that govern more specific forms of covert cooperation of individual with the police. They refer to:

– covert surveillance on private premises that requires the consent of the premise's owner and judicial authorisation (Art. 149a (6) (3) CPA);
– wire-tapping and recording of conversations that requires the consent of at least one participant in the conversation and judicial authorisation (Art. 150(1) (4) CPA; and
– feigned purchase, acceptance or giving of a bribe or a gift that may be implemented with the assistance of other persons assisting the police (Art. 155 CPA).

At the same time, there has been no dispute in the case-law that individuals, freely and covertly cooperating with the police, thus maintaining a confidential relationship, are essential to just and effective law enforcement.[13]

Compensated informants

All of the above mentioned forms of informant's cooperation with the police may take place without any compensation or reward for the cooperating individual. Ground for compensating a cooperating individual does, however, exist. Motives for informant's cooperation, of course, vary and may - in addition to pursuing just law enforcement - include a wide range of both personal and professional interest. Slovenian legislation addressed two main motives for informant's cooperation: pecuniary rewards and sentencing leniency.

a) Pecuniary compensation

Slovenian police may, by virtue of Art. 49a of the Police Act, maintain funds for special operational purposes. Funds may be utilised for the payment of costs and rewards for undercover police operations and covert police cooperation, as well as for the payment in return for providing useful information related to criminal offences or perpetrator.

Police Act therefore allows for pecuniary compensation to a cooperating individual in all of the above mentioned circumstances. It does not, however, provide for rules regulating the manner and conditions under which the informant is to receive payment (apart from the "usefulness" of the information provided), nor does it require the police to disclose any receipt of payment to the informant in subsequent criminal procedure.

b) Sentencing leniency - members of criminal associations

Criminal Code 2008[14] in Art. 294 provides for grounds of reducing the sentence to a member of criminal association who either prevented the commission of criminal offences by the criminal

11 Official Gazette of the Republic of Slovenia, Nos. 49/1998, 93/2001, 52/2002-ZDU-1, 56/2002-ZJU, 26/2003-ZPNOVS, 79/2003, 110/2003-UPB1, 43/2004-ZKP-F, 50/2004, 54/2004-ZDoh-1, 53/2005, 98/2005, 113/2005-ZJU-B, 78/2006, 14/2007-ZVS, 42/2009, 22/2010, 58/2011-ZDT-1, 40/2012-ZUJF, 96/2012-ZPIZ-2.
12 Official Gazette of the Republic of Slovenia, No.
13 Supreme Court of the Republic of Slovenia, I Ips 31/2003; Constitutional Court of the Republic of Slovenia, U-I-271/08.
14 Official Gazette of the Republic of Slovenia, Nos. 55/2008, 39/2009, 91/2011.

association or who disclosed information relevant to investigating or proving criminal offences already committed by the criminal association. Provision to the same effect was already included in Criminal Code 1995, as amended in 2004.[15]

The effects of the provision are limited and uncertain, both in procedural and substantive terms. In procedural terms, the provision applies only to an individual prosecuted and convicted before a court of law. Defendants are instructed of the possibilities under Art. 294 CC when interrogated, either by the police (under Art. 148a CPA, with suspect's defence lawyer present) or by the judge (Art. 227 CPA). His cooperation cannot, therefore, remain covert. In substantive terms, the provision has affected only in case the individual is convicted of membership in a criminal association (Art. 294 CC). The provision, therefore, is of no use to the police in pursuit of their preventive efforts or in pursuit of their criminal intelligence activities.

c) Sentencing leniency - plea bargaining

Recent amendments to Slovenian CPA have introduced the possibility of defendant (with the assistance of defence lawyer) and the public prosecutor reaching a plea agreement (Art. 450a CPA et seq.). Here, it is clearly not opportune to go into details of Slovenian plea bargaining arrangements.[16] What is relevant at this time is that the CPA envisages the possibility of reaching a plea agreement as early as in the final stages of preliminary procedure, before requesting judicial investigation or directly filing an indictment. Plea agreements may require the defendant to offer a full and clear admission of guilt to the charges, including full information about other participants to the criminal offence. The defendant will necessarily act as a witness for the prosecution, as there is no prohibition against using the plea agreement as evidence against other participants.[17] In return, the cooperating defendant may be offered a reduced sentence (the agreement being binding upon the sentencing judge), dropping charges for a selected offences etc.

Since reaching plea agreements lies solely with the public prosecutor, the police are in no position to offer such proposals to the suspect in preliminary procedure. The possibility of plea agreements does, however, invite the public prosecutor to engage in preliminary proceedings more actively, luring the informant into cooperation. This may be achieved by the public prosecutor by inviting the suspect (informant-to-be) to enter in plea agreement negotiations (Art. 450a CPA). Such an invitation may be extended without suspect having a defence lawyer and is in no way binding upon public prosecutor. He may, in case of non-cooperating suspect, withdraw from negotiations at any time.

Even though the full range of possibilities is still to be explored, the positive effects of plea bargaining in prosecuting organised drug trade are already clear. The benefits, however, extend beyond organised criminal activity: plea agreements may be concluded for any offence and are binding upon the court.

Recent developments

At the time of writing, the National Assembly has passed legislation reforming the police organisation, tasks and power in Slovenia. The legislation has not been yet in force. In relation to informants, it contains provisions to the same effect that have been included in the Police Act currently in force.

The new Act on Police Tasks and Authorities will,[18] however, strengthen the possibilities regarding the use of informants. Art. 11 of the Act provides a clear basis for police to utilise confidential informants (termed "sources"), in both preventive and repressive activities. It also offers for the first time a comprehensive definition of an informant (in the sense of human intelligence source), as a person cooperating willingly with the police and providing operational data on criminal offences, their perpetrators and other activities related to criminal offences.

15 Official Gazette of the Republic of Slovenia, Nos. 63/1994, 23/1999, 40/2004.
16 For further reference, e.g. Gorkič, 2011.
17 Currently, co-defendants may be treated as a "witness" for the purpose of right to examine witnesses against the defendant under Art. 6/3/d of the ECHR. A plea agreement would, therefore, constitute an admissible piece of evidence insofar as other defendants are given the opportunity to confront its author (i.e., their co-defendant).
18 Proposal available at URL: http://www.dz-rs.si/wps/portal/Home/deloDZ/zakonodaja/izbranZakonAkt?uid=28BCC94603FADEBBC1257A85003164D4&db=pre_zak&mandat=VI (4 Feb 2013).

The aim of the provision is clearly to facilitate a more (pro) active use of informants. Namely, the Act introduces a new provision prohibiting entrapment when collecting data through informants. Prohibition of entrapment was previously applicable only to undercover police operations and to feigned purchase, giving/taking of bribes and gifts.

ANONYMITY OF INFORMANTS

Success of pursuing informant's anonymity will vary according to various procedural settings individual's cooperation takes place. While it may be possible to limit the publicity of cooperating defendants through limiting the publicity of the trial itself, it is virtually impossible to keep the identity of the defendant that decided to cooperate with the prosecution from his co-defendants and their defence lawyers. Under Slovenian law, both pre-trial hearing (where plea agreements are read and verified by the court) and the main hearing that takes place in case of non-cooperating defendants are subject to the principle of trial publicity, along with the departures recognised by the CPA in Art. 294.[19] Excluding the public does not, of course, include any of the parties, the injured party, their representatives and the defence lawyer (Art. 296/1 CPA). They are, however, instructed by the judge that they are to keep secret any information revealed at the pre-trial or the main hearing, subject to criminal sanctions (Art. 296/3 CPA). In as much as anonymity of cooperating defendant is required to protect his personal life (including personal safety), excluding the publicity from the trial may be one of the measures applicable.

The central issue is therefore securing anonymity of informants acting as covert human intelligence sources that provide information to the police in preliminary proceedings or that cooperate in execution of special investigative techniques and do not appear as defendants at trial.

Pre-2011 legislative framework

The core mechanism of securing informants anonymity by not disclosing his identity throughout criminal procedure was Art. 56 of the Police Act. Police officers were required to keep secret state, official or other classified information they encounter while performing their duties. Additionally, police officers were obliged to safeguard the identity of the source that has filed a report, provided information or filed a complaint.

The extent of police officer's duty to safeguard the identity of the source of information was wide reaching. In principle, it extended to keeping the personal data of the source not only from suspects (later on, defendants and their lawyers), but also from public prosecutor and the court itself. The extent of this provision made itself evident every time a police officer was put to the stand to testify before a court of law: Art. 235 CPA prohibited a witness from being interrogated if his testimony would lead to a breach of his duty to keep data secret. As a consequence, police officers were empowered to refuse testimony in respect of informant's identity.

Disclosing informant's identity was possible, if the Minister of Interior relieved the police officer from his duty to keep informant's identity secret. According to Art. 56/3 of the Police Act, the Minister could, "with well-founded reasons, when this is in the interest of the criminal proceedings and does not endanger the life or personal safety of an individual" relieve a police officer of the obligation to keep data secret, at the request of the competent boy. It might have been possible, therefore, for the trial judge to request the minister to relieve the police office from his duty to keep informant's identity secret, therefore enabling the court to interrogate the police officer and compel him to testify.

19 Under Art. 295 CPA, " the panel may on the motion of the parties or on its own, but always after it has heard the parties, exclude the public from the trial or a part thereof if so required by the interests of protecting secrets, maintaining law and order, by moral considerations, the protection of the personal or family life of the defendant or the injured party, protection of the interests of minors, and if in the opinion of the panel a public trial would be prejudicial to the interests of justice. " Same applies to the pre-trial hearing (Art. 285a/1 CPA).

Chances of such an outcome, however, were highly unlikely. Not only were the courts reluctant to pursue such a line of inquiry, being aware of the delicate nature of covert police work.[20] The Minister, under Art. 56/3 of the Police Act enjoyed a wide-reaching discretion, without the possibility of judicial supervision. The Supreme Court of the Republic of Slovenia recognised and supported the minister's discretion in this matter and refused to take evidence that would require the disclosure of covert police operatives, and, in effect, informants as well.[21] Indeed, initial drafts of the new Act on Police Tasks and Authorities took into account the position of the Supreme Court and strengthened the discretionary powers of the police regarding the disclosure of informant's identity. Informant's identity could, in practice, be considered as absolutely protected.

Constitutional Court's Decision and subsequent legislative reforms

The March 2011 decision of the Constitutional Court[22] turned the tide. Its intervention might be considered even a minor one: the Court found that the wide-ranging discretion of the Minister of the Interior, with no effective means of judicial supervision, runs against constitutionally protected rights of defence, specifically, the right to have adequate time and the facilities for the preparation of defence and the right to examine witness against the defendant (Art. 6/3(b, d) of the European Convention on Human Rights).

The Constitutional Court dealt with the issue upon request filed by the Supreme Court on a matter that exposed perhaps the most dangerous aspect of informant use. The Court encountered a situation, in which the police refused to disclose identity of a person (an informant) that offered to the police information in favour (!) of the defendant. Despite repeated requests of the court to disclose the identity of the informant (in order to put him to the witness stand), the police refused to do so.

The Court, as already mentioned, supported the need to encourage individuals to cooperate with the police. It also supported the need to keep such cooperation confidential. At the same time, it took the opportunity to deal systematically with the issue of non-disclosure of relevant confidential information to the defence in criminal procedure. It recognised that non-disclosure may rise on different grounds, e.g. state security, personal safety, protection of investigating techniques employed by the police. Additionally, it prescribed a provisional regime of judicial oversight in case disclosure of confidential data was at stake.

More specifically, if the Minister refused to comply with the court's request to relieve a police officer from duty to keep informant's identity secret, the police were required to disclose the data in question to the president of appellate court and give grounds for their non-compliance, at an *ex parte* hearing. The president of the appellate court is required to give proper weight to both arguments of the police and the arguments of the defence and decide on whether the secret data, i.e. identity of the informant, is to be disclosed to the trial judge or even to the defence.

At this point, the president of the appellate court has several options. He may order full disclosure of confidential data. He may also decide to fully endorse the position of the police and refuse to order any disclosure of confidential data at all.[23] Or, he may decide that data in question be partially disclosed to the trial judge (and to competent court personnel), so that the court may proceed with informant's interrogation by taking measures required to prevent disclosure of informant's identity from the defence and from the public.[24]

The main lesson learned is, of course, that informants can no longer expect to remain completely anonymous.

20 The reluctance of the courts to inquire into the identity of cover police operative - or, indeed, informants - was clearly expressed in cases that involved requests of the defence to interrogate undercover operative. The courts prior to 2003 Constitutional Court Decision Up-518/03 regularly refused to put the undercover operatives to the stand and were satisfied with their written reports.

21 Supreme Court of the Republic of Slovenia, I Ips 31/2003, 17 Feb 2005.

22 No. U-I-271/08-19, 24 Mar 2011, published in the Official Gazette of the Republic of Slovenia, No. 26/2011. Also available in English at URL: http://odlocitve.us-rs.si/usrs/us-odl.nsf/o/3A723E580722AF03C12578EA0033CBF8 (4 Feb 2013).

23 No disclosure of informant's identity may be expected when there is serious and immediate danger for the life and limb of the informant. The very fact that a person holds specific information may provide clues to his identity, especially when the information is known to a select few. See Gorkič, Šugman, 2011, p. 96.

24 A combination of such measures (the use of video conferences with measures to distort witness appearance and voice) may result in full anonymity of the witness taking the stand (Art. 240a and 244 CPA).

CONCLUDING REMARKS: POST-2011 DEVELOPMENTS

Subsequent reform of police and criminal procedure legislation followed, in essence, the regime determined by the Constitutional Court. Amendments to the CPA,[25] in force since May 2012, introduced some adversarial elements, by allowing the defence to argue grounds against non-disclosure of confidential data. The new police legislation took account of the Constitutional Court's decision: the police have a duty to ensure safety and anonymity of informants (Art. 11/4 of the Act on Police Tasks and Authorities), as long as they do so in compliance with the regime set by the Constitutional Court.

In general, courts continue to practice a fairly restrictive judicial oversight of informant practices. While the Supreme Court initially supported the need to keep informant's identity confidential, it also adopted a reasonably well balanced approach to determining probable cause on the basis of informant's statements. Since 2008, the Supreme Court has consistently argued for the two-pronged Aguillar-Spinelli test,[26] developed and later - so it seems - abandoned by the US Supreme Court.[27] Informant's statements continue to hold a prominent place in investigating organised crime: typically, they give the factual backing to authorising special investigative techniques

It is yet not clear what the effects of possible disclosure of informant's identity will be. It may lead to a set-back in both creating informants as well as using informant-provided information in criminal procedures. In some cases, it may even be necessary to give up informant-based evidence, even if this significantly raises the chances of a not-guilty verdict. On the other hand, the threat of disclosure may have positive effects not only in respect of securing judicial oversight of covert policing practices and strengthening defence rights. It may indirectly lead to an increased effort of seeking independent corroborating evidence that will support informant's credibility or even take his place altogether.

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10. Zupančič, B. M., et al. (1996): Ustavno kazensko procesno pravo, Atlantis, Ljubljana.

25 Official Gazette of the Republic of Slovenia, No. 91/2011.
26 See, for example, Supreme Court of the Republic of Slovenia, Judgement I Ips 78/2008, 18 Dec 2008.
27 See Zupančič et al., 1996, p. 377 et seq.

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POLICE INFORMATION SYSTEMS IN CRIMINALISTIC

Martin Meteňko, MA
Hewlett Packard, Slovak Republic

Abstract: Author shortly characterizes the content and scope of evidence in connection with criminalistic information systems. Information and communication technologies help better understanding the connection between different trace and information in criminalistic. He analyzes the possibilities of using digital and digitalized information as a trace and other objects. Relatively new part of criminalistic – system, helps us better using of criminalistic evidence traces and other criminalistic objects. He demonstrates various ground parameters of digital evidence systems. This contribution is the result of the project implementation: a centre of excellence of security research code ITMS: 26240120034 supported by the Research & Development Operational Program funded by the ERDF, task 3.3.

Keywords: evidence, data, digital data, types of digital evidence, evidence, evidence police information systems information systems.

INTRODUCTION

The quantity and quality of information, which are available about the event of the investigation, substantially affect the successful clarification and investigation of any relevant criminalistic events. A high percentage of newly acquired information is used here. However, the same meaning and purpose do also have older information, which were routinely and suitably well collected and with established procedure made available to authorized persons, which are related to problems being currently dealt with[1]. For example, most frequently it's the information about:

– unexplained crimes and how they are committed,
– physical, psychological, vocational, and other characteristics and skills of the perpetrators of earlier committed crimes,
– information about the stolen items,
– secured criminalistic traces,
– the looks of persons,
– the available identification characters — for example shapes of their papillary lines, etc. [2]

The collected information also have considerable importance for the prevention of crime, for example they provide information about how to overcome different locking systems, their reliability and functionality under different conditions, they provide information on subjects of interest of the perpetrators, of places and time of committing the crime, and other[3]. Some of this information may be provided by the manufacturer of specific equipment, with a view to enhancing their quality (safety against assault), or the correction of deficiencies, which may result in an accident, fire or other unwanted consequences. For these purposes, there are other criminalistic information used, in particular information of a statistical nature, which along with other criminalistic data, allow us to infer the structure of crime, its trends and the effectiveness of the measures taken.

All of the foregoing information is commonly used, but the systematic arrangement and mutual relationships between separate systems is often neglected. In Slovakia, there is also a number of police information systems used and a number of obsolete systems within criminalistic activities. Their consistent mapping, linkage and comparative use is very inconsistent[4]. Attempts for a single informa-

1 MUSIL, J. a kol. *Úvod do kriminalistiky*. Praha : Policejní akademie České republiky v Praze, 1999 . 129 s. ISBN 725 – 019 -3
2 NĚMEC, B.: *Základy kriminalistiky*, Naše vojsko, Praha, 1954, 335 s., altern. PJEŠČAK, J. a kol: *Kriminalistika učebnica pre právnické fakulty*, Pravda, Bratislava 1981, 432 s.
3 PJEŠČAK, J., BĚLKIN, R.S. *Kriminalistika II.* Praha :Vysoká škola Sboru národní bezpečnosti.1984.176 s., similar PORADA, V., a kol., *Kriminalistika.* 1. vyd. CERM. Brno 2001. ISBN 80-7204-194-0. s. 23 – 24.
4 PORADA,V. a kol.2007.*Kriminalistika*.Bratislava:Iura Edition, 007,604 s.ISBN 978-80-8078-170-5.

tion system are repeatedly unsuccessful. The issue is the same reason for unsuccessful linking and distribution of information as well at European level. These considerations have led the author to attempt of mapping information systems as one of the sources and the substrate for the processing of the upcoming dissertation. Post is part of a research project: Centre of excellence of security research, where it is a part of the research project to which the section is dedicated to the examination of issues related to digital traces[5]. The problems relate to the current situation in the Slovak Republic.

THE IMPORTANCE AND FUNDAMENTAL QUESTIONS OF SOLVING THE PROBLEM

The importance of criminalistic information was appreciated already since the inception of modern criminology and was respected by such important figures as Vidocq, Bertillon, Galton, Gross, Henry, Locard's and others. Although, only by narrowly applicable, single-purpose collections they created a historical basis for today's modern criminalistic and police information systems.

In the course of time they significantly changed:

– the contents of criminalistic information systems,
– their form,
– the organizational layout,
– the possibility of access to information and
– methods and means to be used together with the legal bases.

These changes are dependent on, for example, the amount of information in the various parts of the information system, the technical condition of databases, on the possibilities of transfer of information between several departments and the like. Understandably, Criminalistic Informatics may not be, as system of criminalistic knowledge regarding the conduct of registration and information systems and their use, in conflict with legal standards, which today, are placing considerable emphasis also on the protection of personal data.

The collection of information into criminalistic systems does not provide the formation of functional information systems. The critical role is played by way of acquisition of data, including the required objectivity and completeness and the structure of the information. This is dependant for the manner of their processing, storage and use[6]. Great importance has also a speed of update of stored information, which immediately affects the functionality of the systems of criminalistic computer science. The adverse consequence of the lack of speed for updating of the information stored is that it unnecessarily comes to the creation of very large and difficult to use criminalistic records and collections and to the redundancy. This can lead to time delays in obtaining information and to infringement of rules of law with respect to the information that should already removed or destroyed.[7]

The speed of updates must correspond with the speed of access to the information needed.[8]

For example, it is necessary to register the data on stolen vehicle as quickly as possible and make them available in real time, by the competent authority, in order to prevent an offender to pass national border with the stolen vehicle.

Criminalistic information system (KIS)-information system designed for the needs of the criminalistic investigation. It can be described as a set of information items and information activities.

5 METEŇKO, J.,., a kol.. *Kriminalistické metódy a možnosti kontroly sofistikovanej kriminality*. Bratislava 2004. Akadémia PZ SR v Bratislave. ISBN 80-8054-336-4, EAN 9788080543365. 356 s., s. 7 a nasl.

6 PORADA, V., STRAUS, J., Kriminalistické stopy. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk, 2012, ISBN 978-80-7380-396-4.

7 ŠIMOVČEK, I.a kol,*Kriminalistika*.1vyd.APZ v Bratislave. Bratislava 1997.ISBN80-8054-005-5 VIKTORYOVÁ,J.-STRAUS, J. a kol. *Vyšetrovanie*. Bratislava: Akadémia Policajného zboru, 2010, 789 s. ISBN 978-80-8054-505-5

8 STRAUS,J. a kol. 2005. *Kriminalistická taktika*. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk, 2005, 278 s. ISBN 80-86898-40-7, similar STRAUS, J. Aktuální aspekty rozvoje kriminalistiky. In *Bezpečnostní teórie a prax*, zvl. číslo – I. díl, 2001, s. 269 – 282

The essence of information elements is made up of individual information, variety of file cabinets, computers or other technical means and their systems, handling of systems, users of the system, and more. The quality of the information elements, their technical nature, used software, the method of gathering information and their structure, transmission of information and their whereabouts and a host of other factors has a major impact on the possible compatibility of criminalistic information systems within the individual regional territories throughout the state and in the framework of transnational cooperation. In particular in this area, there is still need to resolve the problems in technical, organizational and legal way.

In the context of criminalistic information system there are following **information activities**[9]:

- Gathering information from a variety of sources of information, such as criminalistic traces, evidence, testimony of persons, inspect the crime scene,
- The creation of the information
- Information processing, which is adequately specified by analytical and synthetic functions of criminalistic information system-the more detailed and more expedient processing of information is, the more information you can obtain,
- Disclosure of information, allowing for the possibility of obtaining information from the criminalistic information system for qualified entity - not only the speed of obtaining the information is important, but also the possibility of their mutual combinations
- Use of the information, which is reflected in particular in the work of the police and other bodies active in criminal proceedings and aims to contribute significantly to the clarification and examination of a specific event. This activity already exceeds the framework of the concept of criminalistic information system, however, works as a feedback, signaling pros and the shortcomings of the system.[10]

The mentioned information activities help subsequently to meet the basic functions of the criminalistic information system. Among these features, we include heuristic function, analytic, synthetic, and distribution.[11]

BASIC FUNCTIONS OF THE CRIMINALISTC INFORMATION SYSTEM

Heuristic function

Its mission is to use the information for new purposes. These are based on the collection of information about relevant events and are gathered up by objective and precise methods. This function is normally carried out by the police authorities or even prosecutors and judges. For these purposes, they are equipped with the necessary technical criminalistic means. However, it is necessary to use a uniform and predetermined terminology.

Analytic function

Lies in the appropriate processing of the information received, in such a way, that they are adapted for inclusion into the criminalistic information system. It is necessary to categorize, systematize and sometimes even encode the information, allowing them to be classified into different groups. Analytical function is also used to identify different objects and in cases, when it is necessary on the basis of the features and characters of the suspected object to search for matching objects and to make the necessary comparison.

9 STRAUS, J., PORADA, V., *Systém kriminalistických stop*. 1. vyd. Praha: Policejní akademie České republiky, 2006. 167 s. ISBN 80-7251-226-9

10 VIKTORYOVÁ,J.- STRAUS, J. a kol. *Vyšetrovanie*. Bratislava: Akadémia Policajného zboru, 2010, 789 s. ISBN 978-80-8054-505-5

11 METEŇKO, J., *Kriminalistická taktika*, Akadémia PZ v Bratislave, Bratislava 2012, 1. vydanie, 267 s., ISBN 978-80-8054-553-6. S. 209-223.

The synthetic function

It is the function of criminalistic information system, which consists in an appropriate linking of individual information. Subsequently, new information is created, with higher information value, which is used in the next criminalistic practice. The synthetic function allows you to get several information on individual persons or deed at the same time, if the query is properly worded. This information can be used, for example, in the area of prevention, where they can be arranged in the form of charts, tables, statistics and other similar outputs.

Distribution function

Allows you to provide information to all entities with the appropriate privileges to access. No matter how well processed the information are, they lose importance, if they are not quickly and easily accessible, as far as possible by the competent authority, in particular by law enforcement authorities, operational investigation authorities, decision-makers and other. Cumulative distribution function must avoid, that the information has been obtained by unauthorized entities. The provision of information is therefore commonly bound to access passwords, codes, and other measures.

Criminalistic information system was not, is not, and neither in the future will not be immutable and stagnant.[12] In recent years, there has been a significant progress in the use of computer technology, which provides new possibilities for data processing. Creating a new criminalistic records and the collection, and vice-versa obsolete cease to exist. Considerable effort is dedicated to the mutual linking of criminalistic information systems. Developing new forms of international cooperation, envisaging mutual exchange of the relevant data, even outside the territory of the Slovak Republic. An example of such integration tendencies are international institutions, such as INTERPOL, EUROPOL or EUROJUST.

CRIMINALISTC REGISTER SYSTEM

Criminalistic registers and criminalistic collections form the basis of criminalistic information system. Criminalistic records are in substantially larger amount of information than criminalistic collection, with the exception of dactyloscopic collections that contain up to a few thousand of registered objects.

Criminalistic records can be divided according to various criteria. For example:

- territorial level for which they are kept (districts - higher territorial units - headquarters)
- according to the technical way of storage (manually - computer) and
- according to the other criteria stemming from the needs of criminalistic practice.

In the past, there has been a change in the method of recording of information in the framework of the criminalistic registers. Passed from the identification of the different types of information, to the registering of comprehensive information about the event, along with information about people, traces and matters associated with the event. This system allows far more efficient use of the information. Older types of criminalistic registers, in particular the manually-driven, are not currently updated and are transferred to the criminalistic information systems and gradually cease to exist.

Criminalistic registers are kept under the Police Bureau of the Slovak Republic. After the fulfillment of the relevant conditions, they are accessible to authorized users. Among the most important in terms of historical, utility values and frequency of use, but also the range and number of users, are the investigation information systems (PIS).

Criminalistic theory of informatics in field of work with the information describes 3 basic groups of information sources. Their real content may not always be immediately linked to the police and criminalistic activities, but may be usable for them.

12 RAK R., JANÍČEK P.: Identifikace v kriminalistickej a bezpečnostní praxi podporovaná výpočetní technikou, *Znalectvo* č. 3/2000, ročník V, str. 30-38, 2000.

Criminalistic information systems – Criminalistic registers[13]

Which have a direct or indirect link with the criminalistic activities of the police? This also includes investigation information systems.

Other police information systems

That do not have a direct link with the criminalistic activities of the police. This also includes all police non-criminalistic information systems of the police in the field of transport, registration of the population, or any other information systems with security focus.

Non-police information systems[14]

that do not have a direct link or with the police and other security activities in the police. This group includes non-police information systems, Ministry of the Interior, other Government and public organizations, publicly beneficial social institutions and according to the level of accessibility as well as private information systems.

CHARACTERISTICS OF CRIMINALISTIC REGISTERS

Criminalistic registers store information about people, things and events, which had a certain relationship to the investigated event in the past, but also information that may have a relationship to the current, or even an upcoming crime. They are used for the collection, classification, registration of criminalistic relevant information and their use in detecting, investigating and preventing crime. Criminalistic registers allow you to use the registered data to identify persons suspected of a crime, the identification of persons and things according to registered data and tracks, which can be found in the collections unsolved crimes and based on these to take criminalistic measures.

Objects and methods of registration in criminalistic registers[15]

Objects, which information is collected about in the criminalistic registers, are divided into three basic groups:

- people: characters of the person, as an object registered in different parts of the criminalistic registers. They form a certain core group of characters that are always registered in the relevant part of the registers. It records information that identifies a person by personal data, external characters, papillary lines, special signs and tattoos, nicknames and cover names, anthropological data and the way of committing a crime,
- crimes: these are the objects of records of unsolved crimes, based on the distinctive features of each type of crimes and how to commit a specific crime,
- things and traces: as objects of criminalistic registers, they are registered in the registers of the things that have a relationship to the crime (under external characters) and in the registers of traces from scene of crime (traces of tools, etc.). This does not include traces that are a reflection of the external features of the offender (e.g. dactyloscopic trace).

The importance of criminalistic registers as a means of prevention but also detection of crime can be currently seen in several views[16]:

- concentrates, classifies and systematize criminalistic relevant information,
- explores the dynamics and evolution of crime,

13 RAK, R., PORADA V., Obecné a specifické charakteristiky identifikace a verifikace osob a věcí z pohledu využití IT v bezpečnostní praxi ve vztahu ke kriminalistice a forenzním vědám, *Kriminalistika a forenzné vědy, Zborník z odborného semináru, 2003*, Akadémia Policajného zboru v Bratislave, s. 25-63, ISBN 80-8054-302-X

14 RAK, R. *Informatika v kriminalistické a bezpečnostní praxi*. Praha, Policejní prezidium ČR, 2000. (471),

15 RAK, R., PORADA V., Obecné a specifické charakteristiky identifikace a verifikace osob a věcí z pohledu využití IT v bezpečnostní praxi ve vztahu ke kriminalistice a forenzním vědám, *Kriminalistika a forenzné vědy, Zborník z odborného semináru, 2003*, Akadémia Policajného zboru v Bratislave, s. 25-63, ISBN 80-8054-302-X

16 RAK R., JANÍČEK P.: Identifikace v kriminalistickej a bezpečnostní praxi podporovaná výpočetní technikou, *Znalectvo* č. 3/2000, ročník V, str. 30-38, 2000.

- evaluates operative–investigative activities
- it concentrates the information necessary for the determination of the measures aimed at the prevention and detection of crime,
- creates the preconditions for the identification of objects of registers
- allows distribution of information relevant to the detection, verification and investigation for police.

The information collected in information systems cannot be understood in isolation. When using the information compiled by criminalistic registers, we experience its overlapping. The data that will be used for criminal police for screening of criminalistic versions for the decision on the further progress of the police investigation can be used later in other police activities.

RECORD – STATISTICAL REGISTERS

Record-Statistical System of Crime EŠSK

Information from this information system is sent by the IT department to individual police workplaces according to their needs. Data are served in the form of so called standard or non-standard outputs. The so called non-standard outputs are processed on the basis of specific requirements. The importance of non-standard outputs lies primarily in the processing options of detailed analyses, with a different combination of individual data in them, which allows you, after correct specified requirement and its subsequent processing, a higher degree of statistical classification, which increases the degree of probability of individual claims and statements from the analysis of a phenomenon.

The importance of EŠSK, in addition to the possible source of the information to the current analysis of the survey of the phenomenon (a specific type of criminality), lies in the following:

– Allows you to track the status, structure and dynamics of crime in a particular territory. This option is used, in particular in the planning and management activities of the police managers at all levels.
– Allows you to watch the place and time of her omitting, which in practical terms allows you to, for example, plan the performance of certain acts necessary for the purpose of investigation.
– Allows you to track the perpetrator of crime, his social or family medical history, occupation, age and other relevant figures.
– Allows you to keep track of the person injured, or victims of crime, its social or family medical history, occupation, age and other relevant figures
– Allows you to watch some of the ways and forms of committing crime, e.g. the use of guns, crime committing individuals, pair, group, etc.
– Allows you to watch some of the elements of criminology and victimology, which allowed the crime, e.g. the offender or the victim were under the influence of alcohol, etc.
– Allows you to monitor the consequences and the extent of material damage caused by the crime. Allows you to get an overview of the most common offended objects – or on the subject of interest.
– Allows you to track and analyse the proportion of individual entities in the investigation (who gave the initiative) and clarifying (who clarified the case) crime.
– Allows you to analyse the status to a limited extent and the level of cooperation with the police authorities and the criminal police investigators.

EŠSK is formed from the data contained in the form about committed crime, about the offender and the form about changes. These are filled in according to the dials and control tables of EŠSK.[17]

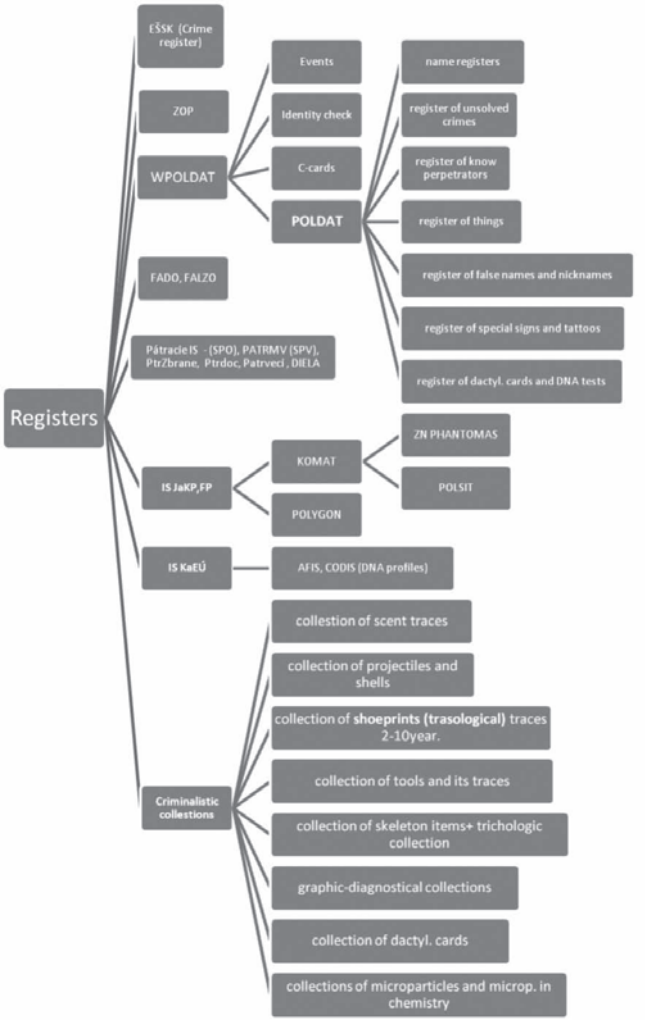
17 RAK, R. *Informatika v kriminalistické a bezpečnostní praxi*. Praha, Policejní prezidium ČR, 2000. (471),

TYPES OF CRIMINALISTIC REGISTERS

POLDAT = Operational – tactical register OTE

Operational – tactical register consists of the following registers:
- Unsolved crimes register,
- register of things
- Name register (called alfabetky),
- register of a known offender,
- register of false names and nicknames,
- register of special signs and tattoos,
- Dactyloscopic registration cards and DNA tests

Unsolved crimes register



For each crime, there is a special card filled out (green card „A"), right according to the reports of daily events. There are all the relevant circumstances of the crime: date, place and time of the crime, the method of committing and concealment, the subject of interest of the offender, the victim, and the initials of the department which clarifies the amount of damage.

The individual cards are stored according to the nature of the crime, for example:

- violent crimes – the cards and 1 to 9, and
- morality crimes – card B 1 to B 13, e.g. rape – (B) (1)
- generally dangerous crimes – (C) 1 and C2,
- property crime-burglary-theft card D 1 – D 15,
- property crime – ID theft – card E E 1 to 24,
- drug crime – card T,
- economic crime – card F 1 to F 6.

Register of things

Similarly, as the card of unsolved criminal crimes, this card shall be completed and registered according to the specified pattern.

Name register

Contains filled so-called Alfabetky. These are the cards that will be drawn up on each person's last name (current, obtained, even earlier). Stating the date and place of birth, social security number, place of residence and the criminal class. They are arranged in alphabetical order. On each tab, there is a link to a group of tabs in the records of known offenders, allowing a better orientation.

Register of known perpetrators

Contains the name cards of known offenders sorted according to class of committed crime and birth number (the oldest person at the front). Stating the date and place of birth, name and surname of the person (born and current), place of residence, occupation, a description of the person as the person behaved during questioning (whether it had cooperated or pretended illness, etc.), subject matter of interest and parents. On the front side, there is a three-part photo. From the back part there is the description of committed crime. These cards can be compared to cards in unsolved crime register.

Register of false names and nicknames VTOS

It contains the names and aliases regarding to information that the person used during its criminal actions. Most of the persons in the VTOS get its nickname. The cards are registered according to the alphabet of nicknames, where beneath it, is a real name. There is no peculiarity, that one person has listed a number of cards due to the fact that she has performed under different names or nicknames. It is particularly frequent among perpetrators of fraud.

Register of special signs and tattoos

This register contains the identifying characters related to the form of the person, but also the characters that are related to the functional and dynamic characteristics of a person, for example, limp, pronunciation, tics. A special sign is generally to be considered such an identifier, on which an individual differs from the rest of the population, for example. Missing limbs (leg amputated), missing part of the body (e.g. missing a finger), scars, various deformations of the body (the hump), and other differences (e.g. the significantly big nose). These special distinctive marks we describe as of a lasting nature.

CRIMINALISTIC COLLECTIONS

Are used for archiving objects seized in places of unsolved crimes, which allow you to identify either the offender, or the tool, or a weapon. All other obtained objects are, prior to inclusion into the collections, compared with already included. Criminalistic collections are to be found, only at the Criminalistic-expertise institute:

- a collection of tools its traces – tools and things gathered on places of unsolved crimes, subsequently are sorted according to the manner of use, and arranged into logical units
- a collection of projectiles and shells – projectiles and shells from places, where the offender has not been identified. Bullets and shells in this collection are systematically compared to other objects.
- a collection of trasological (shoeprints) traces – contains trasological (shoeprints) traces from places of unsolved crimes, which serve for identification of persons who left trasological (shoeprints)
- traces, like footwear of perpetrator at the crime scene and for identification of vehicles and other objects (teeth, gloves, etc.) from places of unsolved crimes,
- a collection soles and rests of footwear,
- a collection of scent traces – is used to identify the offender. Currently, the results of the methods of scent traces are not accepted by the courts. The difference with other criminal collections is in the fact, that canned scent traces are disposed after a certain period of time.

Automated fingerprint identification system (AFIS)

AFIS, the automated fingerprint identification system is a modern system, based on the use of methods of criminalistic dactyloscopy. It contains a digital collection traces. Its part is also a database of fingerprints of asylum seekers EURODAC.

It allows you to capture and save images of fingerprints into the system from dactyloscopic fingerprint cards, comparison between different cards, as well the comparison of fingerprints obtained from the cards of unsolved crimes, which can be used in the future to compare with later obtained fingerprints.

AFIS database contains database of traces from the places of unsolved crimes and a database of fingerprints of known offenders.

This database is populated by the activity of the dactyloscopic experts from Criminalistic-expertise institute and district AFIS terminals. In the case of identification of a person by means of a comparison of the fingerprints from two fingerprint cards of sufficient quality, system gives of nearly 100% certainty of identification of a person's identity.

Automated identification system for DNA profiles (CODIS)

A relatively newer part of information systems are the results of the tests of DNA - profiles registered in the system of CODIS. It is a digitized collection of profiles from DNA analysis of biological traces. In terms of functionality, it has taken over one of the most elaborate properties of criminalistic information systems from AFIS. Today's CODIS database contains two databases – the DNA profile database from places of unsolved crimes and a database of DNA profiles of known perpetrators. The database of known offenders is in addition to the new cases, also replenished by donations of buccal smears of the perpetrators in the enforcement of a custodial sentence. Only DNA profiles of persons over 100 years of life are removed from the database. This database is populated by the activity of the experts from Criminalistic-expertise institute and district engineers. In the case of identification of a person by means of a comparison of the profile of two records, the system gives 100% certainty of identification of a person's identity.

Information system Fado and FALZO

FALZO is a computerized system of recording data on the incidence of counterfeit money (FALZO), bonds and public documents. The system contains mainly following data: number of

notes, series, denomination, description of the site – the institution of occurrence, the date of the occurrence of the findings, the personal data of the petitioner, counterfeit identification data of the offender, situational circumstances under which they were found, the results of expertise. Data are stored in the register on the basis of reports on the prevalence of fakes.

Referred register is used to obtain an overview of the prevalence of fakes, to evaluate the situation in the region and the identification of the perpetrators. FADO performs a similar task, with the only difference, that it contains information about the documents.

Information system Polygon

Work with this system, is to be understood as a method or procedure, amending non-structural data in the current information on the structural, according to the intended rules for their subsequent evaluation. It combines the content of the information in several ways. It has unlimited memory, it is absolutely reliable in searching for information and may combine and evaluate the remembered information indefinitely. It is used as a method of collecting, sorting, comparing, and evaluating information, searching for links between events and phenomena and the provision of information to the users.

It has two subsystems – BK subsystem –structured text part and IOB subsystem part. The system has extensive options for investigation of crime, for search, combination, completion of piecemeal information, which is relevant for documenting and investigating of crime.

Evaluation in the information system Polygon can be used when:

- finding the necessary information, which we have already saved in the past – for this we need a specific identifier, which is used as a question
- evaluation on the detection of such knowledge, which is already known, but we do not know that it is interrelated.

INVESTIGATION - SEARCH INFORMATION SYSTEMS

In the context of search and delivery of criminalistic traces, the investigation and seizure is a complete mechanism of procedures for delivery of these traces. The most powerful element of the investigation system is a group of information systems used for a targeted search. According to the theory of investigation, the investigation information systems are the most commonly used administrative devices.

The information system **EMON** contains records of persons and vehicles, with reports about their movement, after their occurrence by the checks, carried out during the performance of investigation by members of the police corps. Its functionality is the possibility of direct access to selected data maintained in this information system, for all police officers who are connected to the information network of Ministry of Interior of the Slovak Republic and have granted access right into the information system. It also provides statistical outputs, generating reports and search for the requested data on the beneficiaries of the central management level.

The data from investigation is transferred to the Central Fund and comprise an integral part of its system:

- search for people and for the identity of the corpses found (PATROS),
- search for stolen vehicles, stolen or lost registration plates (PATRMV)
- the incidence of counterfeit and forged money (FALZO), the incidence of counterfeit and changed documents (FADO)
- persons of police interest ZOP,
- operational-tactical records – POLDAT.

Types of separate investigation information systems.

In accordance with the needs of the implementation of the Schengen aquis, several legal systems were created for the purposes of the investigation.[18]

Information system Patros

It is an information system containing personal data of the person sought, as first name and surname, date of birth, permanent and temporary residence, profession and the reason for the request. If the person is wanted for criminal prosecution, criminal activity is recorded, the person who is searching for perpetrator of crime, the dangers, which threaten in process of detection and detention of persons, as is the possibility of the use of weapons or other violence. Patros is used for the purposes of tracing persons, their identity, the identity of the corpses and found human skeletons, convictions of crime, apparent age, real age, height, figure, an accurate description of the parts of the face, clothes, things that person had, special signs and tattoos. It is important to indicate how to proceed after persons were found, who to pass those persons, who to notify.

System contains information about:

- • wanted and missing persons on the territory of the SR,
- • wanted and missing persons on the territory of another state,
- • found undetected identity corpses, or human skeletons found on the territory of the SR, or territory of another state.

The investigation is started by staging data to the computerized database, by department of criminal police, in the place of which a person has permanent residence and only person from this department is entitled to change the data.

Information system Patrmv

Contains the data of stolen vehicles and registration numbers of vehicles. The necessary data are: brand and type of the vehicle, the registration number, engine number, number of body, vehicle paint, the identification marks that distinguish a particular vehicle from others, time and circumstances of the theft, the owner of the vehicle. In the case of electronic security equipment, the staged data must consist precise data about this equipment as well. In this database there are also registered stolen or lost state license plates, registration numbers of vehicles, if their theft or loss has occurred in the territory of Slovakia, Czech Republic or in the territory of another state, which asked for cooperation.[19]

Information system PATRMV consists of registers:

- vehicles or non-motorized vehicles bearing the table with plates of vehicles that have the serial number of the bodywork, chassis or frame and were stolen in the territory of the Slovak Republic,
- stolen or lost registration numbers of vehicles, referred to in point (a), if their theft or loss has occurred in the territory of the Slovak Republic,
- stolen or lost industrial equipment, if its loss has occurred in the territory of the Slovak Republic,
- stolen or lost boats and marine engines, if their theft or loss has occurred in the territory of the Slovak Republic,
- stolen or lost containers bearing the identification number, if their theft or loss has occurred in the territory of the Slovak Republic,
- stolen or lost aircraft bearing registration number, if their theft or loss has occurred in the territory of the Slovak Republic,

18 HEJDA, J. a kol. *Základy kriminalistiky a trestního práva*, VŠE v Praze, 2003, str. 240, 1. vydání, Oeconomica, Praha, ISBN 80-245-0560-6

19 KRAJNÍK, V., STRAUS, J. a kol. *Kriminalistcká taktika*. Bratislava: Akadémia Policajného zboru v Bratislave, 2000, 221 s. ISBN 80-8054-146-9

- means of transport, which were stolen abroad, from citizens living permanently on the territory of the Slovak Republic, or foreigners who have been allowed to stay on the territory of the Slovak Republic, if the holder or the owner of the means of transport has asked about the investigation,
- vehicles wanted in connection with the detection of criminal activities and vehicles used by wanted persons.

The register of stolen weapons PATRZBRANE

The register is used to immediately detect whether or not a weapon that was handed over to the police department, or found, or ensured without papers, is wanted and to ascertain whether this weapon has not been used for committing a crime.

The system contains data on the arms, as a serial number, tag, type, caliber, pattern, time and description of the circumstances of the stolen or lost weapon, data about the owner and the date of notification of the event.

Information system PATRZBRANE

Contains records of stolen, lost or in connection with criminal proceedings wanted firearms, if their theft or loss has occurred in the territory of the Slovak Republic, or in the territory of another state.

Information system PATRDOC, consisting of registry:[20]

Lost or stolen issued documents, which are registered in the individual source information systems:

- Information system of the administrative agendas-traffic-management agenda,
- Information system of the administrative agendas-Agenda of travel documents,
- Information system of the administrative agendas-Agenda if Ids,
- Information system of the Slovak Republic population Register-Register of foreigners,
- Information system for registration of vehicles
- lost or stolen documents, if they were stolen or lost on the territory of the Slovak Republic or in the territory of another State,
- lost or stolen securities, if to their theft or loss has occurred in the territory of the Slovak Republic or in the territory of another State,
- lost or stolen banknotes, if to their theft or loss have occurred in the territory of the Slovak Republic or in the territory of another state.

Information system PATRVECI, starting January 1, 2011 a newly implemented system for recording of things after which investigation started was introduced. The system is currently in the stage of saturation of data and has no significant practical application yet.

Persons of police interest ZOP

This register system is one of the most used police systems and information from it is provided only for police need. It contains data and provides information about convictions of crimes, investigated by the police authorities and investigation police departments. The scope of the information in ZOP is as follows:

- identifying information about the perpetrator of crime (social security number, name, surname, place of birth, place of residence at the time of committing the last recorded crime, other surnames, nicknames)
- data on crime (number of records, the file number, the year of registration, the way of the completion of the case, type of crime, the number of deeds),

20 METEŇKO, J.,., a kol.. *Kriminalistické metódy a možnosti kontroly sofistikovanej kriminality*. Bratislava 2004. Akadémia PZ SR v Bratislave. ISBN 80-8054-336-4, EAN 9788080543365. 356 s., s. 7 a nasl.

- additional information about the crime (a kind of weapon, committing a crime while under the influence of alcohol or drugs, number and unit where photography was made, social background, criminal history, etc.).

CONCLUSION

This study is devoted to the analysis of the content and scope of criminalistic and police information systems in the Slovak Republic. Its basic aim, was to attempt to assess the state of information systems, because also in Slovakia there is a large amount of information systems in police and criminalistic activities which are being used and also are obsolete. Their consistent mapping, linkage and comparative use are very inconsistent. Attempts for single information system are repeatedly unsuccessful. The problem is the same reason, for as well linking and distribution of information at European level fails. These considerations have led the author to attempt mapping information systems, as one of the sources and the substrate for the processing of the upcoming dissertation. Study is part of a research project: a centre of excellence of security research code ITMS: 26240120034 supported by the Research & Development Operational Program funded by the ERDF. The study is part of the research project, which is devoted to the examination of section 3.3 problems associated with digital traces[21].

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21 RAK R., PORADA V. Digitální stopa, *Sborník z vědecké konference „Pokroky v kriminalistice"*, Policejní akademie, Praha, 2004.

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A REVIEW ON THE ATTENTIONAL BIAS OF DRUG ADDICTS

Hao Tang, PhD
Department of Narcotics Control, National Police University of China, Shenyang
Yuan Yuan, MA
Department of Public Security Intelligence, National Police University of China, Shenyang

Abstract: Drug addiction has become an international social issue. The studies looking at drug addiction have been conducted for a long time, and it was shown in some studies that attentional bias to addiction-related cues significantly affects the initiation, development, maintenance and relapse of individual addiction. At present, researches on the attentional bias of drug addiction are in the initial phase in China. This paper therefore summarised the methodology and clinical application of the attentional bias of drug addiction, aimed to provide grounds for the research and treatment of drug addiction in future, helped to gain insights into the psychological mechanism of induced drug craving and relapse behaviours, put forward the suggestion of intervention on drug addicts' attentional bias, and built the foundation for staying away from drugs or quitting drugs. At the end, it proposed further research perspective and the revelation for drug control, which was hoped to carry out better than ever. The further research can also apply attentional bias to drug enforcement activities, beginning with the identification and prevention of drug crime.

Keywords: drug addiction, attentional bias, attentional bias training, drug treatment.

INTRODUCTION

Drug addiction is the behaviour model of compulsively seeking drugs and taking drugs, and it is a serious social issue that always perplexes drug control workers. Drug addicts will produce physiological dependence and psychological dependence once drug addiction is developed. Physiological dependence refers to a body adaptation state resulting from repeated use of drugs; physical detoxification normally takes one to three weeks or even longer, and physical dependence on drugs will basically be eliminated afterwards; however, psychological craving to drugs exists in a long term. Psychological dependence is the behaviour of compulsively seeking and taking drugs, and a severe psychological craving, for experiencing the spiritual effects of drugs; it is the pharmacological cause of drug addiction, and it is difficult to effect a radical cure once it is developed.

Many researches demonstrated that individual addicts exhibit an attentional bias towards the cues of material-related stimulus (Robbins & Ehrman, 2004). In the drug-using scenario, "attentional bias" refers that drugs cues take precedence to capture attention from experienced drug users, and makes them exhibit a prior attentional processing to drug-related cues. It might be automated that drug addicts detect drug-related cues, and the behaviours affecting drugs-seeking might also be conducted under unconsciousness (Tiffany, 1990). It was shown in previous studies that the attentional bias to drug-related cues significantly affects the initiation and development of drug addiction. Therefore, a review on attentional bias to drug addiction was conducted in this study in attempt to gain a comprehensive insight into the attentional bias of drug addiction behaviours.

ATTENTIONAL BIAS AND ITS COMPONENTS

Attentional bias refers to the fact that the distribution of attention in individuals towards the corresponding threat or the related stimulus is altered in contrast to the neutral stimulus (Bar-Haim, Lamy, Pergamin, Bakermans- Kranenburg, & van Ijzendoorn, 2007). Cisler and Koster put forwards that there are three components of attentions bias as follows (Cisler & Koster, 2010).

1) Facilitated attention, it refers that the attention is more easily or quickly drew by certain information;

2) Difficulty in disengaging, it means that it is difficult to shift the attention from certain stimulus to others if the attention is captured by such stimulus;
3) Attentional avoidance, it is that there is the tendency to shift attention to opposite or corresponding hints of certain stimulus, for instance, individuals tend to shift their attention from threatening stimuli to neutral stimuli, if they appear simultaneously.

EMPIRICAL RESEARCH ON THE ATTENTIONAL BIAS OF DRUG ADDICTS

As mentioned above, researchers put forward different theoretical explanations of attentional bias from different perspectives, therefore, empirical researches have been conducted to verify the scientific of the theories above. Many researches demonstrated attentional bias to material-related stimulus cues in individual addicts, and indicated the significant role of attentional bias to drug-related cues in the initiation and development of drug addiction (Robbins & Ehrman, 2004).

Research on Behaviouristics

Paradigms that are usually employed in present research on the attentional bias of addictive behaviours include addiction stroop task, visual probe task, dual-task procedures, and attentional blink task. The addiction stroop task is the most frequently used experimental paradigm and task in behavioural research.

The most widely used in the research on the attentional bias of addictive behaviours is addiction stroop task. Two kinds of vocabularies – drug-related vocabularies and emotional neutral vocabularies – appear in it. These vocabularies are marked with different colours, and subjects are instructed to respond to the colour of vocabularies quickly and accurately under the condition of ignoring lexical semantic. The index of attentional bias is the average reaction time difference between drug-related vocabularies and neutral vocabularies that individuals name colours respectively. According to addiction stroop task, lower reaction time of naming colours of drug-related vocabularies shows that the automatic processing of lexical semantic content can weaken the response of colour naming. It may be because the attempt to avoid attentional processing towards material-related vocabularies results in lower reaction time of naming colours of such vocabularies (Klein, 2007). There is another explanation that drug-related vocabularies induce individual addicts' subjective craving for drugs in addiction stroop task. Therefore, the response latency of colour naming may be due to the appearance of drug-related vocabularies (Algom, Chajut, & Lev, 2004). It was found in a study of heroin addiction stroop task that heroin abstainers exhibit a severe attentional bias towards drug-related cues, and there is no significant improvement along with the extension of convalescence (Zhu, Shen, & Yin, 2005).

Research on Brain imaging

Prior studies showed that conditional material cues induce the ordinary neural response in brain areas of people with substance dependence, and these areas include anterior cingulate cortex, dorsolateral prefrontal cortex, prefrontal cortex, ventral striatum, superior frontal lobe and temporal lobe (Wilson, Sayette, & Fiez, 2004). Moreover, the executive function of substance abusers is often impaired, such us high impulsivity and poor impulse control.

Addiction stroop task and functional magnetic resonance imaging (fMRI) were employed in Goldstein *et al.* (2007), and 14 cocaine users were tested in colour naming response to vocabulary. The results showed that both sides of anterior cingulate cortex were activated, and abdominal anterior cingulate cortex/medial prefrontal cortex had low activation. Another research on the use of cocaine use conducted by Goldstein *et al.* (2009), setting up healthy control group and using fMRI, found that in addiction stroop task, drug-related vocabularies only activated the midbrain system of cocaine users; it was only among cocaine users that the increase of drug-related midbrain response was correlated to the enhancement of drug vocabularies fluency. It indicated for the first time that fMRI response to drug vocabularies in midbrain region of individual cocaine addicts might be cor-

related to dopamine neural mechanism and language conditioned response. Functional imaging methods offer excellent approaches for addiction studies, however, it rarely uses imaging methods in drug addiction research arena to study the relevance of the impairment level of the functional structures of the brain and corresponding behaviour change, and it is therefore a very practical new aspect of drug addiction research.

Research on Electrophysiology

Event-related potential (ERP) is the most frequently used technique in electrophysiology research. It is a more direct measure to study attentional bias compared to the experimental study of reaction time.

Neutral and heroin-related pictures were presented to 19 male heroin dependent patients and 14 male healthy controls in the study of Franken *et al.* (2003). It was found in results that heroin dependent patients exhibited larger slow positive wave (SPW) components of the ERP on heroin-related pictures than on neutral pictures. Within healthy control subjects there was no difference on the SPW between neutral and heroin pictures. Within heroin dependent patients, mean SPW response to heroin pictures was correlated with the use of heroin. Similarly, neutral, pleasant, unpleasant and cocaine-related pictures were presented in the cocaine study by Franken *et al.* (2004), the results showed that cocaine dependent patients exhibited enlarged SPW of the ERPs on cocaine pictures than on neutral pictures. However, Franken *et al.* (2008) found that between abstinent cocaine dependent patients and healthy control subjects, the former exhibited enhanced electrophysiological response to late positive components in time windows; in addition, it is more important that the craving for cocaine is closely correlated to the enlargement of late positive components. Lubman *et al.* (2008) examined electroencephalograph (EEG) reading of the attentional processing of neutral, emotional and heroin-related pictures in heroin addicts and control group subjects. It was shown in the study that P300 amplitudes to drug-related stimuli is larger than to emotional and neutral stimuli in heroin addicts. Therefore, it can be seen that P300, SPW and late positive components are the important indices of diagnosing EEG changes of the attentional bias of addicts.

CLINICAL APPLICATION OF ATTENTIONAL BIAS TRAINING

A vast amount of addiction research evidence in the past 20 years demonstrated that the characteristics of substance use and abuse is the attentional bias towards addictive substance-related stimuli (Field & Cox, 2008). Previous studies were normally carried out to test the existence of an attentional bias in certain psychological abnormality, and attentional bias was regarded as the concomitant phenomenon of some physiological illnesses. However, the overwhelming view amongst researchers in recent years is that attentional bias is not only the concomitant phenomenon or symptom of some physiological illnesses, but also the cause for their initiation, maintenance and relapse (Hayes, Hirsch, & Mathews, 2010; Waters & Valvoi, 2009). The consensus on this proposition means that the intervention on attention can alter the symptoms of physiological diseases, and attention research is thus applied in clinical treatment. There are numerous researches on the attentional bias training (ABT) on a variety of physiological illnesses, which proved excellent clinical effects of ABT. ABT not only becomes a new technique for remission or treatment of physiological diseases, but also offers a new perspective for gaining insight into the mechanism of psychological abnormality. The attentional bias to drug cues is thought to be closely associated with the chronic use of drugs and the relapse after cessation (Attwood, O'Sullivan, Leonards, Mackintosh, & Munafò, 2008). However, attentional bias modification has positive effect on treatment (Weinstein & Cox, 2006).

Researchers implement training to the attentional bias of individual addicts to change their addictive behaviours. Macleod and his colleagues (MacLeod, Rutherford, Campbell, Ebsworthy, & Holker, 2002) are the first to employ modified dot probe task to alter the attentional bias of subjects. The first step of the task was that two stimuli appeared on both left and right side of screen, which were neutral stimulus and emotional stimulus respectively; probe targets were randomly presented on the left and right afterwards, and the subjects were required to report the location of probe tar-

gets as soon as possible. Through task programming, probe targets always appeared in the position of neutral stimuli in order to train the subjects to shift their attention from emotional stimuli (disengaging attention); probe targets always appeared in the position of emotional stimuli to train the facilitated attention towards it. The results of their study and the following researches proved that the attentional bias of the subjects can be effectively controlled by ABT, which can further alter their emotional response and clinical symptoms (Amir *et al.*, 2009). These researches not only provided sound evidence for the assumption of the causal relation between attentional bias and physiological disease, and ABT is regarded as a perspective therapy, which is widely employed in the clinical intervention and treatment of psychological diseases.

Some researchers then used ABT for the correction/modification of addictive behaviours. Field *et al.* (2005) completed attention training procedure in serious social drinkers, half of which received the training of shifting their attention away from alcohol-related cues ("avoiding alcohol group") directly, and the other half were trained to pay their attention to alcohol-related cues ("approaching alcohol group") instead. As a result, attention training procedure was found to make significant change in attentional bias of both groups. Moreover, an enhanced craving for alcohol was developed in "approaching alcohol group" in attention training procedure; in the subsequent taste test, "approaching alcohol group" consumed more beer than "avoiding alcohol group". In a word, alcohol attentional bias manipulation of serious drinkers may have effects on their alcohol craving and consumption. Based upon the experiment above, Field *et al.* (2007) added a control group. Serious drinkers were randomly assigned to "approaching alcohol group", "avoiding alcohol group" or control group. The control group completed a standard visual probe task including alcohol-related pictures, while their attentions were not manipulated. The attentional bias to alcohol-related cues in "approaching alcohol group" was enhanced, which in "avoiding alcohol group" was decreased and did not change in the control group. As for the aspect of subjective craving, subjective craving for alcohol in "approaching alcohol group" was increased after training, while there was no change in "avoiding alcohol group" or control group.

Fadardi *et al.* (2009) employed alcohol attention control training procedure (AACTP) to help excessive drinkers to overcome their selective attention to alcohol stimuli. AACTP is based upon addiction stroop task, involving target setting and immediate feedback, and subjects will make progress through different difficulty levels of training. In most difficulty levels, multiple pairs of alcohol and non-alcohol bottles on the screen were presented to the subjects, and each pair also had a long and narrow colour zone. The subjects were instructed to respond to the colour zone on non-alcohol bottles quickly and accurately under the condition of ignoring alcohol bottles. The objective of this training was to help excessive drinkers to overcome attentional bias towards alcohol bottles through responding to the colour zone on non-alcohol bottles more and more quickly. It was shown in the results that the training effectively decreased drinkers' alcohol attentional bias and consumption, and it demonstrated good effectiveness in the follow-up visit three months later.

PROSPECTS OF FURTHER RESEARCH AND POLICE AFFAIRS

As mentioned above, both theoretical and empirical researches have discussed the attentional bias of drug addicts. These research results are all of great reference value and positive significance for gaining further insights into drug addicts' attentional bias, strengthening prevention and intervention on the attentional bias of drug addicts, and reducing the negative influence of taking drugs on the society or individuals. Summarising the weakness and drawbacks of these studies, this paper proposed further research perspective and the inspiration/revelation for drug control, which was hoped to carry out better than ever.

Multiple channels presenting drug-related cues

Existing researches mainly discussed attentional bias of drug addicts towards visual drug-related cues, paying little attention to the drug-related cues using other sensory channels, such as sense of smell (the taste of drugs), sense of touch (touching drug-related equipment) and sense of hearing (the sounds made by using drugs equipment) etc. It therefore affected the integrity of research results of drug addicts' attentional bias, and disadvantaged the construction of drugs addiction theory.

Based on this, the further researches need to employ multiple channels to present drug-related cues in order to enhance the systematicness and integrity of the research on drug addicts' attentional bias.

Seek to intervene in the attentional bias of drug addicts, be grounds for staying away from drugs or quitting drugs

The ultimate purpose of the research on drugs addiction is to reveal the formation mechanism of drug taking, and to be grounds for staying away from drugs or quitting drugs. So is the research on the attentional bias of drug addicts. Therefore, both the theoretical exploration and empirical research on drug addicts' attentional bias will eventually focus on the intervention on the attentional bias of drugs addicts. Overviewing the intervention on the attentional bias, there are mainly two methods at present including drug intervention and psychological intervention; drug intervention mainly influences on the early attention bias through the amygdala system from bottom-up, while psychological intervention mainly influences on the late attentional bias through the lateral prefrontal cortex from top-down (Browning, Holmes, & Harmer, 2010). Although the intervention research specifically on the attentional bias of drug addicts is relatively rare at present, it is a psychological intervention, if attentional bias modification procedure can reduce drug addicts' attentional bias.

Since drug intervention and psychological intervention have an effect in different levels and different stages, and both are of certain exploratory, as for the futher research, on the one hand cognitive behaviour therapy (CBT) should be involved (Hollon, Stewart, & Strunk, 2006), and the effects of each means of intervention should be further verified to enhance its effectiveness; On the other hand, the research should try to integrate the two intervention methods in order to improve its validity, and then facilitate drug addicts to stay away from drugs or quitting drugs.

Set up attentional bias training room in drug rehabilitation centre

At the moment, the most commonly used psychological therapies in drug rehabilitation centre are individual psychological therapy, positive reinforcement therapy, aversion therapy, cognitive behaviour therapy, group therapy etc; if the effectiveness and applicability of the attentional bias training (ABT) are verified, an attentional bias training room can be set up in drug rehabilitation centre, and this can avoid drug-related cues more thoroughly, paying less attention to drugs psychologically and facilitating getting rid of drugs addiction completely. Some drug rehabilitation centres in China have already carried out full comprehensive psychological treatments, for example, Meishan drug rehabilitation centre in Sichuan province is the first to offer playing sandbags, navigating the maze and implementing "playing games" drug treatment, for which the centre opened the catharsis room, sand table games and psychological labyrinth. A forced isolation drug rehabilitation center located at Nancai town of Shunyi districts of Beijing also set up an emotional catharsis room, and imported foreign advanced brain function instrument to test the data of patients' brains; the staff will conduct comparison of data analysis graphics of patients' brains, to observe the electroencephalograph (EEG) changes of drugs addicts before the drug treatment and after recovery. In comparison, ABT is a relatively economical and practical psychological treatment method, and is feasible. Employing this training in psychological treatments can help drugs addicts to getting rid of drugs addiction completely, while it still requires further investigation into its specific utility.

Apply research results into police services

The further research can also apply attentional bias to drug enforcement activities, beginning with the identification and prevention of drug crime. First of all, attentional bias research can assist identifying drug crime, which calls for the further research to determine the examination standard of the attention bias of drug crimes in order to get critical value or critical region, consequently, it would act as a deterrence to criminals and enable them to confess as soon as possible, and it also assist the public security organs in cracking the case the soonest possible. Secondly, from the point of view of drug prevention, attentional bias research can be used among the ordinary people, especially teenagers; School counseling room can open an attentional bias research centre, thus the students who exhibit the attentional bias towards drug-related cues will be able to receive drug prevention

education. Currently, misunderstandings about drug prevention education in Chinese schools do exit. One is that children may develop into taking drugs for their curiosity, if it is too early to explain drug-related knowledge to them; secondly, there is the opinion that the reason causing students to take drugs is not at school, but is the bad influence of society or the lack of family education, it is unnecessary for schools to provide drug prevention education for students; Thirdly, it is thought that drug control departments are responsible for the anti-drug education, schools therefore have nothing to do with it. In fact, it is schools that are the best place to offer such education, as children should be aware of the harms of drugs from youth onwards, and they will be on the right track with proper knowledge. In conclusion, it is essential to involve drug prevention education in the school psychological counseling. Build a drug prevention psychological profile for each student when they enroll in schools, a part of which is the related information on their attentional bias, therefore the prevention in future will be more targeted.

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CRIMES INVOLVING MODERN SCIENTIFIC TECHNOLOGY AND THEIR PREVENTION

Professor **Jin Zhang**, BA
Lecturer **Shan Lu**, MA
Yuan Yuan, MA
Department of Public Security Intelligence, National Police University of China, Shenyang

Abstract: Along with the rapid development and improvement of modern science and technology, crimes exhibit an increasing trend to be highly technical and intelligent; different from traditional crimes, crimes involving modern scientific technology have brought severe harms to social safety and stability. Gaining insights into crimes involving modern scientific technology and exploring the countermeasures in the reality of conditions are the significant issues facing the criminology and criminalistics at present. It is therefore from this perspective that this paper conducted a comprehensive analysis of modern science and technology and crimes under the new circumstances; moreover, for the practical requirements of combating crimes and crime prevention and control, the study put forward the new concepts and approaches of investigation as well as the approaches to crime prevention and control in the context of modern science and technology.

Keywords: science and technology, crimes involving modern scientific technology, investigation approach, approach to prevention and control.

INTRODUCTION

Modern science and technology is a double-edged sword. While it has brought people spiritual and material benefits, its negative domino effect is becoming increasingly prominent. The development of modern science and technology, in particular, has provided more opportunities and conveniences for the international terrorism and various criminal crimes. Nowadays, the modus operandi of criminals is becoming artful and sly, and the means to commit crimes are becoming technicalized, intelligentized and professionalized, which have greatly contributed to the abruptness of crimes in the aspect of time, the uncertainty of crimes in the aspect of space and the antagonism of crimes in the aspect of criminal means. In today's society with great and rapid development of science and technology, the police of all nations should further enhance their sense of urgency and responsibility, and achieve the leap-forward development and innovative advancement of crime detection and solution with the aid of modern science and technology, and improve the capabilities of using science and technology to fight against and prevent crimes.

CRIMES CAUSED BY MODERN SCIENCE AND TECHNOLOGY

Since crimes come into being in human society, science and technology have acted as two roles, both positive one and negative one: the positive one uses it to "subdue the demon and tame the evil", while the negative one uses it to "raise winds and make waves". Different from the traditional crimes, crimes involving modern scientific technology have brought severe harms to social safety and stability. It can be said that the damage caused by modern technology is far greater than the benefit from it.

Crimes Caused by Information Technology

With the development of modernization, human society has gradually stepped into information society. In such information society, information technology has made great leaps forward, which speeds up information resource share, digitization, delivery and retrieval to an unprecedented extend. While rapidly growing information resources bring people huge economic and social benefits

and create essential momentum to economic growth, they have caused a great increase of information crimes which have an increase at the rate of 10% to 15% annually[1]. A few developed countries have an even greater increasing rate than this. Crimes involving information technology reflect in the following two aspects.

- Crimes in the Field of Computer and Internet
  - Crimes of Trespassing on by Hackers
  - Crimes of Making, Circulating Computer Virus and Spy Software
  - Crimes of Composing, Forging and Counterfeiting with Computers
  - Organized Network Crimes
  - Cyber Pornography
  - Cyber Gambling
  - Online Fraud
- Crimes in the Field of Communication Technology
  - Crimes of Handset Message Fraud
  - Crimes of Handset Concurrent Code Larceny
  - Crimes of Handset Wire Tapping and Stealthy Screening Infringement
  - Crimes of Handset Remote-controlled Explosion

Crimes Caused by Digital Chip Technique

Crimes involving digital chip technique are a kind of crime which is to design, modify, copy, activate and hide electronic circuit program on purpose while making or using chips illegally, so as to make profits viciously and unlawfully, infringe upon others' privacy and endanger social public security. They are as follows.

- Credit Card Fraud Crimes
- Crimes of Forging, Fabricating Public Documents and Seals
- Crimes of Forging Identification Card and Value Tickets and Certificates
- Crimes of Forging and Fabricating Faked Money
- Electronic Larceny Crimes

Crimes Caused by Chemosynthesis Technique

With the popularization and application of high-tech knowledge that has created conditions for new kinds of drugs, crimes involving chemosynthesis technique have appeared. Nowadays, the production of new kinds of drugs is becoming more and more scientifically and technically modernized. The manufacturers of new drugs, making full use of the convenience brought by high-tech, utilize chemosynthetic methods to make slight change for a newly kind of drug name to come forth.

Crimes Caused by Biological Science and Technology

Crimes involving biological science and technology are crimes that, with the development of biological science and technology, especially the rapid development of modern life science and technology, have come into being during the activities such as biological science and technology research and development, application, transfer and management. Biological science has gone through rapid development in recent years, and biologic science and technology have been widely applied in social life. As a result, corresponding crimes emerged in scopes and fields concerned with development of modern biologic science and its technical applications, which have cast a shadow on the stability of human society as well as the sound development of biologic science and technology.

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NEW CHARACTERISTICS OF MODERN SCIENTIFIC TECHNOLOGY CRIMES

The development of scientific technology modernization has been propitious to fighting against and controlling crimes, while it has exerted negative influences on crimes in various respects, and makes social crimes exhibit many new characteristics.

New Characteristics of Crime Subjects

• Crime Subjects with Advanced Knowledge

With the gradual development and advancement of modern science and technology, China has stepped into a high-certificated society, in which the trend of crime subjects possessing high certificates has emerged. At present, in some big and middle-sized cities, the quality of crime subjects has been conspicuously raised, and crimes committed by college professors, researchers are not rare. It was shown in some materials that 70% to 80% of computer crimes are committed by computer experts[2]. Therefore, the improvement of the quality of crime subjects is an era characteristic of crimes and an inevitable result of the development of scientific and technical modernization.

• Young Age of Crime Subjects

Modern science and technology have brought great and abundant material enjoyment and spiritual enjoyment to human beings. No matter they are low-cost web "virtual societies" or they are high-cost all sorts of digital products, they do attract each youth greatly. Under the temptation of such environment, the reality of information equalization and status disparity will inevitably make some young people over-consume, consume on debts, or even commit crimes in order to obtain the funds for their expending. Recently, there is a high occurrence of crimes committed by youths in China. According to the statistics, in 2003 young criminals under the age of 25 accounted for 45% of the total crimes doers nationwide, and 33% of the total in security detention nationwide, what is more is that they exhibit a tendency to increase year by year[3]. Meanwhile, crimes committed by minors who are under the age of 18 are in a conspicuous increase, and are in an increasing types.

• Complexity of Crime Subjects' Motives

Under the condition of science and technology modernization, the crime subjects have complex mentality, and their crime motives to harm the society have a trend of complexity.

(1) *Motives of Making Money and Profits*

Under the condition of science and technology modernization, some people make use of modern science and technology to make money and profits. Their main motives are to satisfy their desire of wealth possession and the desire of enjoyment. For instance, some hackers, in order to make illegal economic profits, steal national secrets and commercial secrets, infringe upon intellectual property rights and computer information resources.

(2) *Motives of Venting Indignation and Taking Vengeance*

Under the condition of science and technology modernization, some people use modern science and technology to commit crimes just out of venting their indignation and taking vengeance instead of gaining economic profits. For example, some hackers hack in or intrude and destroy others' websites because they harbor grudge to the victims, and most of them are employees or customers of the victims who are unsatisfied with the victims.

2 Shuying, Zhang. A brief analysis of computer crime and its prevention and control countermeasures. *Gansu Agriculture, 2004(12)*:84.

3 Renhua, He & Shanyun Yang. A brief analysis of the current situation of juvenile crime and its prevention. *Science & Technology Information, 2011(12)*:442.

(3) *Motives of Hunting for Novelty and Desire for Excelling*

Under the condition of science and technology modernization, some people commit crimes just out of their curiosity and just want to challenge their individual intellect. In some hacking cases, the hackers take great interests in destroying the computer security protection system of certain websites, and they regard their actions of breaking into, disturbing and destroying others' computer systems as a challenge to their own intellect. Once succeeded, they will be very joyful and happy.

(4)*Political Motives*

Under the condition of science and technology modernization, some people use modern science and technology to commit crimes completely for their strong political destruction purpose. For instance, some hostile forces overseas use the internet to attack and slander Chinese Communist Party and Chinese socialist construction; therefore, they have committed various severe crimes.

New Characteristics of Crime Means

- Use modern science and technology in order to reduce the risk of crime

(1)*"Handset" has become the tools of commanding and executing crimes.*

Development and popularization of mobile communication techniques have changed and improved the contacting means and efficiency among the criminal members. Many criminals have made full use of the concealment of the unlicensed SIM cards they bought or victims' handsets, to contact hostages' family in kidnapping cases; they command the exchange of ransom money, and avoid the risk of using wire phones, delivering correspondence etc. to exchange information.

(2) *Committing Internet Crimes across Time-Space has become a reality*

Computers and networks have the features like the great property of crossing time-and-space, vulnerability of electronic data, easy modification and deletion, and good concealment of computer performers, all of which have become the powerful tools for criminals to commit high-tech crimes. Like the cases in cyber gambling, online fraud and network wealth peculating, most of them are carried out by setting up websites in other places, getting on the Internet from different locations and appearing in virtual identification. The characteristics of the uniformity of space and time in traditional crimes have been broken.

- Success rate of committing crimes has been raised with the use of modern science and technology

(1) *New technology makes attacks "be ever-victorious"*

"Technologically unlocking" makes security doors perform practically no function

Because the criminals have mastered the unlocking principles of spring locks, they use the special tools to technically unlock the doors in order to steal, which makes the security doors perform practically no function and makes it so hard for the numerous people to guard against. The spring locks which have a history of 100 years meet with unprecedented challenges.

"Technically stealing cars" makes car security systems be cracked.

With the advancement of car technical system against thieves, the types of decoders used to decode the appliance against theft are increasing, and crimes involving jammers are increasing as well. Not only the technical content of crime means has been increasingly higher and higher, but also their diversity has been renovated constantly. For example, some criminals pretend to be soldiers and police so as to check cars or make accidents like colliding the rear of cars on purpose etc., to loot cars.

(2) *New types of biochemistry products have become accomplices in crimes*

In 2003, in Sichuan Province, China, the case of Hu Dao-ping poisoning, murdering the victim and conducting robbery was solved. The criminal used nitric oxide to poison and murder the victim. Such modus operandi was rare in Sichuan Province, even in the whole nation. In 2003, ac-

cidentally, Hu studied the method of making nitric oxide from a chemistry book. Then he bought the raw materials for making the poisoning gas. After testing it on animals successfully, he carried the poisoning gas bottle with him every time he committed a crime. He forced the nitric oxide gas through the inner hollow tube of a fishing rod into the janitor's room to commit crimes of murdering and looting. In this way, he had murdered 7 people and looted a fortune of 580,000 RMB.

• Use of modern science and technology to evade arrest

Development of science and technology has made medical cosmetic surgery technique become more and more advanced. It can make you more beautiful or make you lose your identity. While this technique gives us unexpected pleasant surprise, it has provided the criminal suspects with possibilities of hiding their identities and evading the sanctions of law. In 2001, three carders of certain branch of the Agriculture Bank in Jiamusi City conspired to commit a crime. They absconded with 60 million RMB of public money. Then in a hotel room in Changchun City, the principal criminal, Wang killed the other two accomplices. In 2002, Wang took cosmetic surgery in a famous cosmetic surgery hospital in Shanghai. He made faked ID card in his new looks and bought commercial housing. After he was arrested, his wife and daughter could not identify him at all.

Use of modern science and technology to conduct anti-investigation

(1)*Hiding crime evidence*

Modern techniques of mobile communication, internet and micro electron etc. have provided the criminals with useful conditions to conduct anti-investigation. For instance, deliver crime information on the internet by registering in virtual names or stealing others' addresses or e-mail boxes; use handset payment cards such as Shenzhouxing to commit crimes, steer clear of the mobile communication fee counting system and make the detection department unable to check the calling list; use "handset invisibility bag" to shield the handsets by electrons so as to avoid handset electromagnetic radiation and revealing of handset number; use handset voice changer to change the voice of male or female, or change the voice age of the speaker.

(2) *Forgery or Fabricating actual information and traces at crime scene*

Use modern science and technology to disguise or distort the actual crime scene as well as material evidences. Such as in the case of stealing and robbing motor vehicles, delete and change the number of vehicle body and its engine; disguise and alter the related information of computer cyber crimes; use computer synthetic technique to forge and alter traces and material evidences; use digital tools to distort and forge digital audio-video materials.

COUNTERMEASURES AGAINST CRIMES INVOLVING MODERN SCIENTIFIC TECHNOLOGY

New Investigation Approaches in the Context of Modern Science and Technology

• Investigation approach using biotechnology

Biological recognition technology mainly refers to the technology using human biological characteristics to conduct identity authentication. The biological characteristics of humans can be divided into physical characteristics and behavior characteristics. Physical characteristics include fingerprint, palmprint, eye print, vein line, brain print, heliograms, dermatoglyph, taste print, face shape, footprint, DNA and ear print etc.; Behavior characteristics include signature, keystroke, voice, shaking hands and walking gait etc. The authentication technologies of some biological characteristics mentioned above such as fingerprint, palmprint, face shape, DNA, vice, footprint and walking gait, have already been applied in China, which play a significant role in criminal investigation. Especially, DNA individual identification technology takes humans into the nanometer world that use cells to crack cases. It greatly expanded the scope of on-site evidence collection and crime individual identification conducted by police, and resolves the difficulties of identifying suspects directly or indirectly, paternity testing, identification of unknown body, identification of the dismembered body

and murder-rape cases etc. For example, in 2000, Suzhou (located in Jiangsu Province, P. R. China) was the first prefecture-level city to establish a DNA database, which has become the most important tool to crack homicide cases at present. There are currently ten categories of data in this DNA database input by Suzhou police, including crimes key personnel database, the missing person and unknown bodies' database, material evidence at the crime scene database and the relatives database etc. As long as the criminal leave even a little trace at the homicide scene, after extracting it successfully, the police can use the computers to conduct the comparison of DNA data in Suzhou database that has more than 300,000 human samples, in Jiangsu database having more than 1.5 million and in the national database with more than 7.8 million human samples, to locate the suspect in the end.

• Investigation approach using network technology

Network investigation is a part of investigation tasks and is a series of investigation activities using public security information, Internet information and social information etc., employing the computer network technology, information technology and the talents with online combat skills. For example, online crime scene investigation, online screening, online verification, online combination of cases, online stakeout, online suspect control, online stolen property control, cyber pursuit, cyber social relation analysis, cyber technical investigation, cyber tracking, online intelligence analysis, online information analysis and judgment, online data mining, online policing and online command etc.

For instance, online verification is an applied method that the public security organs use all kinds of information resources via online retrieval, comparison, analysis and the like of the elements obtained in the investigation that is possibly related to the crimes including persons, events, objects, organizations and address etc., and find out the truth in order to find and obtain crime leads and ascertain criminal facts. Online verification consists of five aspects including man, case, content, organization and address.

Online screening is an applied method that the investigators use online information resources via online retrieval, comparison, analysis and the like of the elements possibly related to the crimes including persons, events and objects etc. that are obtained at work , look for the elements set related to these elements and then cascade each element involved in the case into a mutual corroborative information chain, so as to narrow the scope of investigation, look for the leads for cracking the case and screen the suspects or the related.

Through the information from public security intranet, the approaches to conduct screening are as follows; one is through the information of trace and material evidence; the second is through the information of person's activity trace; the third is through the information of vehicle's activity trace; the fourth is through the communication information; the last one is through the video information.

The approaches to conduct screening using social information are as follows; one is through the account opening information; the second is through the transaction information; the third is through the Internet information.

• Investigation approach using video technique

Employing video monitoring system for the prevention and investigation of crimes has already become the strategy many countries adopt. In the field of criminal investigation, by the application of video monitoring system with real-time monitoring and image record, the effectiveness of investigation departments is significantly boosted. Following science and technology, operational techniques and network monitoring technology, video investigation as a new method and concept of criminal investigation will certainly become a new powerful tool for cracking cases. The video investigation tactics for rapid fighting against crimes are as followed.

(1) *Target tracking method*

It is one kind of investigation methods that after searching and identifying suspect from video surveillance, based upon the characteristics of suspect's face, dress and the vehicle etc. that can be used for identification, investigators monitor the possible leave en return routes all along and ascertain the route and foothold of the suspect in order to narrow the scope of investigation.

(2) *Information correlation method*

It refers to the investigation method that after identifying suspect from video surveillance, based upon the information of using mobile phone, entering into the Internet bar, checking in at a hotel and so on reflected in the suspect's activities, the investigators conduct information correlation timely to expand investigation channels.

(3) *Scenario analysis*

It is an investigation method that based upon the study of the case, the investigation personnel analyzes the elements such as the changes of the possible routs of suspect in and out of the crime scene and his dress and goods carried, possible transport, and the place the suspect may go for disposal of stolen properties after crime, taking the traffic situation of on-site and the surrounding of related areas into account, checking the corresponding video surveillance, to locate the suspect.

• Investigation approach using the Internet

Through the discovery, extraction and organization of crime information on the public Internet, construct an investigation integral network combat model, in which the intranet of public security is dominated while the Internet is aided, and exploit the new investigation approach of using Internet.

(1)*Tracking down stolen property through the Internet*

Considering the prevailing situation of the disposal of stolen goods online at present, investigation organs should develop and improve the investigation measures of online stolen property control. Except for using the information database of items involved in crimes on public security website, it is important to cooperate confidentially with each related trade forum and space on the public internet to find the stolen property and dig deeper to identify the seller of the stolen property as well as the location of goods supply, so as to further investigate people based on the information above, namely 'from thing to people'.

(2) *Evidence collection through the Internet*

As the internalization of modern crimes exhibits an increasingly serious tendency, entire or part of many crimes' processes may be completed on the Internet's virtual space. The discovery, extraction and preservation of evidence of this part of processes, need to be done on the Internet. The most frequently used method for gaining evidence through internet currently is through chat history, the web pages browsed and the E-mails sent and received on QQ, MSN or other communication tools that the target use, to obtain the related digital evidence. Moreover, it uses relevant data, text and photos etc. that are copied and extracted directly, or recovered through electronic information technology from the computer's hard disk the target use, as the evidence of crime. Therefore as long as the Internet users chat, communicate, browse web pages or make a comment on the forum on the Internet, their behavior information will leave the trace on the website's server and form the record. At this time, investigators can have the aid of Internet service provider's host (ISP's host) to obtain the information of suspect's online activities and gain and preserve the existing digital evidence.

(3) *Tracking down suspects through the Internet*

Search resource library based upon the various personal information existing on the network, regard the tool resources as the medium, explore the specific target's personal information by searching on the Internet and then locate the suspect's position in order to catch the suspect. For example, once locate the key suspect through investigation, then through the peripheral situation to gain an understanding of its habits online, detect its trace through the website and forum often logged on as well as the personal information of registration. At present, there are a lot of photos, messages left by friends and the personal introduction on the websites like ChinaRen, RenRen and Happy network; as long as use the search engine of the forum, it is not difficult at all to get access to the relevant information. Furthermore, the functions of network are continually enhanced, therefore a mass amount of 'people enjoy sharing or showing' emerge on the public Internet, sharing their photos, exposing their salaries, showing accommodations and their personal belongings etc., which may turn to be the potential information for cracking the case.

New Approaches of Crime Prevention and Control in the Context of Modern Science and Technology

In the course of science and technology modernization, it is essential to take positive and effective countermeasures, and endeavor to prevent and control the occurrence of crimes involving scientific technology, in order to ensure the healthy development of modern science and technology.

• Crime prevention and control by laws and regulation

With respect to the prevention and control of crimes involving modern scientific technology by laws and regulations, it is essential to use foreign legislations for reference to introduce new accusations. It not only is beneficial for enhancing the pertinence of legal adjustment, but also builds the foundation for the international cooperation to combat high-tech crimes.

The existing Chinese criminal law on the crimes involving scientific technology, especially the regulations on computer crime are far behind the development of the situation, it is therefore crucial to improve it vigorously. Concrete measures are shown as follows. First of all, consummate the accusations. It is essential to use foreign legislations and the legislations of 'Cyber-crime Convention' for reference to expand the categories of computer crime, so as to strengthen the punishment scope of computer crime. Secondly, aggravate legal measurement of penalty. The punishment on computer crime in Chinese criminal law is relatively minor at the moment, therefore it is necessary to increase the measurement of penalty appropriately on this sort of crimes that are seriously harmful to the society. Thirdly, lower the age of criminal responsibility appropriately. The proportion of teenagers in computer crime is larger, although they normally have no business or political motives to cyber crimes like adults do, the social harms caused by the intrusion into the computer systems of state affairs, national defense construction and the field of advanced science and technology, are as severe as adults do, therefore it is necessary to lower the age of criminal responsibility appropriately. Fourthly, add the rule that organizations can be the subject of crime. There are lots of cases in judicial practice that some companies spread computer viruses to other companies in order to achieve the purpose of unfair competition. With regards to the computer crimes committed by organizations, it is essential to use foreign legislations for reference, ruling explicitly in legislations that organizations can be the subject of computer crimes.

• Crime prevention and control by technology

The prevention and control of crimes involving modern scientific technology by technology, are to improve the capabilities of prevention and control technology of such crimes. Based on the actual needs, investigate the technical problems of prevention and control of crimes involving modern scientific technology, focus on strengthening the development and application of safety management science and technology. It is essential to focus on strengthening the control and monitoring technology of the explosive, drugs and other items with severe social harms, strengthening the management technology of computer-related harmful sites, the filtering technology of harmful information, the prevention and cleaning technology of computer viruses, the defense technology of network information leakage and stolen, and strengthening the copy protection and piracy prevention technology etc.

For example, strengthen the research and implementation of anti-counterfeiting and identification technology. Anti-counterfeiting technology mainly develops to the research direction of material specialization, graphics encryption and modernization of printing technology at present. In the United States, a polyester polymer material called "Myra" has recently been made into a fine wire and inlaid to new dollars, as the result, even laser copier cannot copy it out. Graphics encryption mainly employs miniature encryption and probabilistic encryption methods, which leave no room for imitators to start. The United States has used microprinting technology to prevent new dollars from intimating.

Strengthen the research and popularization of the usage of code and anti-theft technology. Cryptographic technique is the core technology of security technology in information society, and it is mainly comprised of encoding technique and code analysis technique. When applying codes to the security protection of personal, property, communication and information, it is needed to vig-

orously develop the code access security technology. Personal code technology exhibits a tendency to use the specificity of human characteristics (such as fingerprints, eye prints and DNA) to set up in the future.

• Crime prevention and control by morality

The prevention and control of crimes involving modern scientific technology by morality, is to strengthen the moral construction of the whole society. On the one hand, in the course of constructing a harmonious socialistic society, incorporating moral construction into the education system, through the social education and school education to enable students and the public to be aware of the moral boundaries of their behaviors, to regulate their own behaviors through moral reason, be clearly aware that carrying out the various behaviors using the means of modern science and technology to damage others' personal and property rights may be an illegal or even a criminal behavior, and they must take the corresponding responsibilities; as a result, eradicate the malicious use of modern science and technology to commit a crime. On the other hand, for the effective prevention and control of crimes involving modern scientific technology, it is required to bring the mass media to play a role in publicity. Use newspapers, television, radio, the Internet and other media, to disseminate the law related to the modern science and technology extensively, report the cases of crimes involving modern scientific technology, reveal the immense destructive power of crimes, and publish the latest national laws on the prevention and control of crimes involving modern scientific technology in due time, to let the social public gain the potential moral consciousness gradually. In the meanwhile, positively and actively lead people to the proper understanding of the roles high and new technology play, improve their discernment of the legitimacy and legality of high and new technology application, let people gain the awareness that high and new technology has no "morality" itself, however, the people who use it do have morality, and the technology can have completely contradict effects depending on users' different usage and intention. Consequently, cultivate the self-discipline and self-consciousness of the society members to abide by the high-tech areas' code of ethics.

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PRELIMINARY STUDY ON IDENTITY THEFT AND COUNTERMEASURES THEREOF

Associate Professor **Wang Quan**, MA
National Police University of China, Shenyang, China

Abstract: Under the circumstance that identity theft has become one of the most frequent crimes in the twenty-first century, basing on the situation that the studies on fighting and preventing identity theft have relatively been dropped behind in current China, aiming at the conditions and characteristics of identity theft in China at the present stage, through borrowing ideas from the U.S.A. on preventing and fighting identity theft, this paper tries to build the basic framework of studying identity theft, as well as preliminarily study to explore the model and way of preventing and fighting identity theft suitable to China.

Keywords: identity theft; crime; countermeasure.

Today, a good name represents not only the spiritual value that comes with such as unimpeachable character, but also the financial value that is rapidly becoming more and more important. With the rapid development and wide popularity of information and internet technology, personal identifying information is more and more informatized and digitalized, which results in greatly increasing the possibility of identity theft. On the other hand, identity theft is much more than just financial fraud; it is also a terrorism problem, a corruption problem, a drug trafficking problem, a cyber crime problem, a smuggling problem as well as a money-laundering problem. According to the report issued by the Federal Bureau of Investigation of the U.S.A., identity theft has emerged as one of the dominant white-collar crime problems of the twenty-first century. Therefore, this paper will systematically expound identity theft and countermeasures thereof from the following aspects.

DEFINITION AND CATEGORIES OF IDENTITY THEFT

Identity theft refers to all types of crime in which someone wrongfully obtains and uses another person's personal data, which should be punished by criminal laws.

Personal identifying information refers to any word or number that may be used, alone or in conjunction with any other information, to identify a specific individual, including:

Social information, including name, ID number, date of birth, driver's license or identification number, alien registration number, passport number, legal person identification number and tax payer's registration number etc.;

Unique biometric data, such as fingerprint, voice print, retina or iris image, or other unique physical representation;

Unique electronic identification number, address, or routing code; or

Telecommunication identifying information or access device

Identity theft generally occurs in three forms:

Financial identity theft involves an imposter's use of personal identifying information to establish new credit lines in the victim's name, applying for loans, buying merchandise, or leasing cars and apartments. Subcategories of financial identity theft include credit and checking account fraud or account takeover.

Criminal identity theft occurs when a criminal suspect, whom an officer is arresting or to whom the officer is issuing a citation, gives another person's personal identifying information instead of his or her own.

Identity cloning, the third category of identity theft, is when an imposter uses the victim's information to establish a new life, living or working totally under the victim's name.

CURRENT STATUS AND COSTS OF IDENTITY THEFT

In U.S.A.

In 2003, the Federal Trade Commission (FTC) conducted the first nationwide survey regarding identity theft. FTC reported that 1.5 percent of the survey participants reported that they discovered that someone had misused their personal information within the year of 2002. The information was used to open new credit accounts, take out new loans, or engage in other types of fraud, such as renting an apartment or obtaining medical care. The survey results suggest that, when extrapolated across the population of the United States, almost 3.25 million Americans may have had their personal information misused within the past year. In total, 12.7 percent of survey participants reported that they discovered that someone had misused their personal information within the last five years.[1]

In a following-up report in 2005, the Federal Trade Commission reported that credit card fraud was the most common form of reported identity theft, followed by phone or utilities fraud, bank fraud, and employment fraud. Other significant categories of identity theft reported include government documents fraud, benefits fraud and loan fraud. The Commission also reported that the percentage of complaints about fraudulent electronic fund transfers related to identity theft more than doubled between 2002 and 2004. Disturbingly, the Commission also reported that 61 percent of victims did not notify any law enforcement authority of the misuse of their personal identification data.[2]

A 2002 survey indicates that 38 percent of individuals have been a victim of an account takeover. An account takeover, or account hijacking is when an imposter gains access to a legitimate bank or credit card account and proceeds to use the account as his or her own. Subsequent data show that, on average, the victims of account takeovers claim average losses of $10 200. The data suggest that the total loss to businesses, including financial institutions, from account takeover was $33 billion in 2002.[3] Adding credit card frauds and new account frauds, the total cost of identity theft approaches $50 billion per year, with the average loss from the misuse of a victim's personal information being about $4800.

In China

So far, despite the fact that Chinese authorities have not published any survey regarding identity theft yet, all types of identity theft cases repeatedly appear in all kinds of medias, such identity theft incidents of a student enrolling university in someone else's name, hacker's getting credit card information, selling other's personal data on internet, applying for credit cards in someone else's name, applying for loans in someone else's name have become the hot points focused by medias and internet. The negative influence on the society and economy by identity theft is becoming more prominent and serious day by day, as well as the public begin to be familiar with this special term.

In China, identity theft occurs in a lot of fields, especially in financial field, health care and social welfare field, business field and internet field. In financial field, the prominent form of identity theft refers to a wrongful obtaining and use of depositors', policy holders', the insured persons' or stock holders' personal data. The purpose of aforementioned identity theft is mostly to conduct financial fraud, such as fraudulent applying for credit cards or loans. In health care and welfare field, the popular form is stealing and misusing personal medical information. Generally, medical organizations and the personnel thereof let out this category of personal information and seek benefits. The purpose of getting the data is to market medicines and health products or to commit other frauds. The common form of identity theft in business field is revealing the clients' personal information for the purpose of illegal commercial competence, illegal business, conducting fraud, or seeking illegal benefits. Stealing and misusing the internet users' registration data to seek illegal benefits is the most prevalent form of identity theft in internet field.

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COMPARISON OF CHINA AND U.S.A. ON IDENTITY THEFT LEGISLATION

Related legislation on identity theft in U.S.A.

In response to concerns about the growth of identity theft, the U.S. Congress has passed several laws, including the Identity Theft and Assumption Deterrence Act of 1998, The Internet False Identity Theft and Assumption Deterrence Act of 2000, The USA PATRIOT ACT as well as The Identity Theft Penalty Enhancement Act of 2004.

The Identity Theft and Assumption Deterrence Act of 1998 makes identity theft a federal crime with penalties of up to 15 years imprisonment and a maximum fine of $250,000. The Act details the following 7 behaviors as crimes: knowingly and without lawful authority producing an identification document or a false identification document, knowingly transferring an identification document or a false identification document knowing that such document was stolen or produced without lawful authority, knowingly possessing an identification (other than one issued lawfully for the use of the possessor) or a false identification document, with the intent of a such document to be used to defraud the United States, knowingly producing, transferring or possessing a document-making implement with the intent to use it in the production of a false identification document or another document-making implement which will be so used, knowingly possessing an identification document that is or appears to be an identification document of the United States which is stolen or produced without such authority, or knowingly transferring or using, without lawful authority, a means of identification of another person with the intent to commit, or to aid or abet, any unlawful activity that constitutes a violation of the Federal law, or that constitutes a felony under any applicable State or local law.

The Internet False Identification Prevention Act of 2000 closed a loophole in the ID Theft Act by enabling law enforcement agencies to pursue those who formerly could sell counterfeit social security cards legally by maintaining the fiction that such cards were novelties rather than counterfeit documents.

The USA PATRIOT ACT requires financial institutions to implement a customer identification program for verifying the identity of any person seeking to open an account, and to maintain records of the information used to verify that person's identity.

The Identity Theft Penalty Enhancement Act expanded the prohibition against identity theft to cover possession of a means of identification of another with intent to commit specified unlawful activity, increase penalties for violations, and include acts of domestic terrorism within the scope of a prohibition against facilitating an act of international terrorism.

Related legislation on identity theft in China

Contrary to the U.S.A., Chinese criminal laws have not prescribed identity theft as an independent crime up to now. The related laws regarding identity theft include:

Article 7, Amendment 7 to the Criminal Law of PR of China: "Where any staff member of a state organ or an entity in such a field as finance, telecommunication, transportation, education or medical treatment, in violation of the state provisions, sells or illegally provides personal information on citizens, which is obtained during the organ's or entity's performance of duties or provision of services to others, shall, if the circumstances are serious, be sentenced to a fixed-term imprisonment not more than three years or criminal detention, and/or be fined. Whoever illegally obtains the aforesaid information by stealing or any other means shall, if the circumstances are serious, be punished under the preceding paragraph. If any entity commits either of the crimes as described in the preceding two paragraphs, it shall be fined, and the direct liable person in charge and other directly liable persons shall be punished under the applicable paragraph."

Item 3, Article 280, The Criminal Law of PR of China: A person who forges or alters the identity card of a resident shall be sentenced to a fixed-term imprisonment of not more than three years, criminal detention, public surveillance or deprivation of political rights; and if the circumstance is serious, to a fixed-term imprisonment of not less than three years and not more than seven years.

Article 1, Amendment 5 to the Criminal Law of PR of China: Anyone who has obtained credit cards by using false identity certification, sells, or provides others with counterfeited credit cards or obtained credit cards by using false identity certification shall be sentenced to a fixed-term imprisonment of not more than three years or criminal detention or deprivation of political rights, and shall be concurrently or separately fined 10 000 yuan up to 100 000 yuan; if the sum involved is huge or if there are other serious circumstances, he shall be sentenced to a fixed-term imprisonment of 3 up to 10 years and shall be concurrently fined 20 000 yuan up to 200 000 yuan.

Anyone stealing, buying or illicitly supplying information of someone else's credit cards shall be punished in accordance with the preceding paragraph. Any employee of a bank or of any other financial institution who violates any of the crimes as described in the second paragraph by taking the advantage of his position shall be given a heavier punishment."

Article 2, Amendment 5 to the Criminal Law of PR of China: Anyone who commits fraud by illegally using someone else's credit card shall, if the amount involved is relatively large, be sentenced to a fixed-term imprisonment of not more than 5 years or criminal detention and shall be concurrently or separately fined 20 000 yuan up to 200 000 yuan; if the sum involved is huge, or if there are other serious circumstances, he shall be sentenced to a fixed-term imprisonment of 5 up to 10 years and shall be concurrently fined 50,000 yuan up to 500,000 yuan; if the sum involved is extremely huge, or if there are other extremely serious circumstances, he shall be sentenced to a fixed-term imprisonment of not less than 10 years or life imprisonment and shall be concurrently fined 50 000 yuan up to 500 000 yuan or be sentenced to confiscation of all personal property:

Anyone who steals a credit card and uses it shall be convicted and punished in accordance with the provisions in Article 264 of this Law.

COUNTERMEASURES AGAINST IDENTITY THEFT

Further enhancing the legislation related to identity theft

Judicial protection of personal information should be based on specifying the laws and related rules regarding identity theft, which must be in accordance with the Criminal Law in regard with fighting against identity theft. Chinese Criminal Law should learn from the U.S.A. experience and make the crimes related to identity theft dependant crimes including detailed provisions and criminal punishment standards.

Accelerating to formulate and perfect industry standards and mandatory rules safeguarding clients' personal information

Considering the differences and changes among all kinds of industries, involved state organs and industries, especially finance, telecommunication, health and social care, internet and business etc., should make and publish industry standards and mandatory rules safeguarding clients' personal information in order to ensure the security and confidentiality of customers' information, to prevent any anticipated threats and hazards to the security and integrity of such information and to protect against unauthorized access to or use of customers' information that could result in substantial harm or inconvenience to any customer.

Practically improving personal information self-protection awareness through active propaganda and education

Safeguarding personal identity information relies not only on criminal measures, but also on personal information, self-protection awareness through effective social propaganda and education such as legal lectures, typical case analysis and community propaganda. The U.S. has published Preventing Identity Theft Handbook listing such identity theft protection guidelines and tips as the following:

Beware of emails, especially with attachments, belonging to someone you do not know.

Beware of telephone inquiries asking you to give your personal information, unless you contacted them.

If you have lost your credit card, report it immediately to concerned authorities.

Do not discard bank, credit card or any other transaction receipts in public areas.

According to an authoritative website, Information Security technology, Public and Business Service Information System Personal Information Protection Guideline, which has been drafted by more than 30 entities including the Ministry of Industry and Information of China, will have been publicized by the end of this year.

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