

JPMNT

Journal of Process Management – New Technologies
INTERNATIONAL

ISSN: 2334-7449 (Online)

Volume 3 Issue 3

July 2015.



Indexed by:



www.japmnt.com



JOURNAL OF PROCESS MANAGEMENT – NEW TECHNOLOGIES INTERNATIONAL

Company for consulting and engineering MAPRO from Vranje, Serbia, publishes PROCESS MANAGEMENT - NEW TECHNOLOGIES INTERNATIONAL and offers membership and cooperation for writing scientific papers that, after review and proofreading published under instruction that is attached.

Company was established in 1990. as a marketing project aimed at public opinion polls and market trends in the area of southern Serbia. Cooperation with young people especially students and young entrepreneurs in the pioneer period, the appearance of entrepreneurship in our country, for the introduction and development of marketing management, and application of new knowledge in economic practice and the creation of conditions for sustainable development, environmental awareness and health education. Statistical monitoring trends and developments investments and measure the effects of changes investment. Special whether additional review is to discover and use new resources in an optimal manner with the use of new technologies.

The aim of publishing this magazine is to engage researchers and scientists, from all parts of the world, to his knowledge, both theoretical as well as practical in writing concentrated more on one site in the form of publications, which will contribute to their greater recognition and the development of economy and society. Management process of new technology permeates all aspects of social life which is a huge area of coverage through this magazine.

Sincerely,
Prof. PhD Predrag Trajković

Kompanija za konsalting i inženjering MAPRO iz Vranja izdaje časopis MENADŽMENT PROCES – NOVE TEHNOLOGIJE INTERNACIONALNI pa Vam nudi saradnju za članstvo i pisanje naučnih i stručnih radova koje, posle recenzije i lekture objavljuje shodno uputstvu koje je u prilogu.

Komapanija je osnovana 1990.godine kao marketing projekt sa ciljem istraživanja javnog mnjenja i tržišnih kretanja na prostoru Južne Srbije. Saradnja sa mladim osobama posebno studentima i mladim privrednicima u pionirskom periodu pojave preduzetništva kod nas, za upoznavanje i razvoj marketing menadžmenta, kao i primene novih saznanja u privrednoj praksi te stvaranje uslova za održivi razvoj, podizanje ekološke i zdravstvene kulture. Statistička praćenja tendencije kretanja ulaganja i merenje promene efekata te opravdanost dodatnih ulaganja. Poseban osvrt je na otkrivanje i korišćenje novih resursa na optimalan način uz primenu novih tehnologija.

Cilj izdavanja ovog časopisa je animiranje istraživača i naučnih radnika, sa svih prostora sveta, da svoja saznanja, kako teoretska, tako i praktična u pisanoj formi koncentrišu na jednom mestu u vidu publikacije, što će doprineti njihovoj većoj afirmaciji i razvoju privrede i društva. Menadžment proces novih tehnologija prožima sve pore društvenog života što čini ogroman prostor obuhvatnosti rada kroz ovaj časopis.

S poštovanjem,
Prof. dr Predrag Trajković

Address of the editorial Board: Filipa Filipovica 28, 17501 Vranje, Serbia

Phone/Fax: +381 17 413 586, +381 17 432 278

Web: www.japmnt.com

E-mail: zurnal43@yahoo.com **Index Copernicus Journals Master List 2012**

japmnt@yahoo.com **ICV 2012: 4.09**

ASSOCIATE EDITORS

Editor PhD Predrag Trajković

Execute editor PhD Svetlana Trajković

Secretary Snežana Manasijević Milkić, Masters of Laws

Technical editor PhD Lazar Stošić

Lector Maja Mihajlović M.A. in English Language and Literature

Lector Ana Stanković M.A. in English Language and Literature

REVIEWER BOARD MEMBERS

Academic Angel Džambazovski, Macedonia

Academic Radenko S. Krulj, Serbia

PhD Alla Belousova, Russia

PhD Aneta Barakoska, Macedonia

PhD Biljana Petrevska, Macedonia

PhD Dejan Vitanski, Macedonia

PhD Dušan Jarić Serbia

PhD Robert Dimitrovski, Macedonia

PhD Emanuel Soare, Romania

PhD Gabriela Paula Petruta, Romania

PhD Dana Mesner Andolšek, Slovenia

PhD Hemanta K. Baruah, India

PhD Jelena Maksimović, Serbia

PhD Jurka Lipičnik Vodopivec, Slovenia

PhD Ka Lok Man, China

PhD.LjubisaStojmirović, Serbia

PhD Vitus Lam, Hong Kong

PhD Margarita Matlievska, Macedonia

PhD Mitrička Stardelova, Macedonia

PhD Miroslav Pavlović, Serbia

PhD Nada Živanović, Serbia

PhD Oksana Baruskova, Russia

PhD Petar Namiche, Macedonia

PhD Radovan Ilić, Serbia

PhD Ranjan Upadhyaya, India

PhD T. C. Manjunath, India

PhD Vera Naumovska, Macedonia

PhD Vladimir Matić, Croatia

PhD Vojo Belovski, Macedonia

CONTENTS

PAGE 1 - 8

Paper 1: TRANSFORMATION AND ADAPTABILITY OF THE SPATIAL DISTRIBUTION OF DIFFERENT TYPES OF HOUSES ON THE URBAN CONCEPT IN CITIES FROM 19TH CENTURY IN MACEDONIA

Authors: Petar Namicev, Ekaterina Namiceva, Macedonia, Italy

PAGE 9 - 16

Paper 2: EFFECT OF DROUGHT ON STRESS IN PLANTS

Authors: Jelena Markovic, Gordana Bogdanovic, Goran Markovic, Serbia

PAGE 17 - 25

Paper 3: COMPARATIVE ANALYSIS OF INDICATORS OBTAINED BY CORINELAND COVER METHODOLOGY FOR SUSTAINABLE USE OF FOREST ECOSYSTEMS

Authors: Slavisa Popovic, Miroljub Mitic, Jovana Dzoljic, Serbia

PAGE 26 - 33

Paper 4: THE QUALITY OF EDUCATION: AN ECONOMIC VIEW

Authors: Evgenia Penkova, Alexander Valkov, Bulgaria

PAGE 34 - 38

Paper 5: THE ROLE AND IMPORTANCE OF INTERNET MARKETING IN MODERN HOTEL INDUSTRY

Authors: Ivica Batinic, Croatia

PAGE 39 - 43

Paper 6: ANALYSIS OF THE NEW LEGAL ACTS ON MOBBING PROTECTION OF THE EMPLOYEES IN THE REPUBLIC OF MACEDONIA

Authors: Jadranka Denkova, Sasko Kolevski, Macedonia

PAGE 44 - 54

Paper 7: MONEY LAUNDERING AS A TYPE OF ORGANIZED CRIME

Authors: Stevan Aleksoski, Ognen Aleksoski, Macedonia

PAGE 55 - 60

Paper 8: CRIMINAL LEGAL POLICY OF REPUBLIC OF MACEDONIA IN CASE OF CRIMES RELATED TO ABUSE OF THE PROCEDURE FOR BANKRUPTCY

Authors: Kristina Balabanova, Macedonia

PAGE 61 - 68

Paper 9: COMPETENCE OF THE STATE AUDIT OFFICE OF THE REPUBLIC OF MACEDONIA AND REVIEW OF THE INTOSAI STANDARDS AND REPORTS OF THE STATE AUDIT

Authors: Lence Filipova, Macedonia

PAGE 69 - 75

Paper 10: MACEDONIAN ADMINISTRATIVE JUDICIAL SYSTEM FOR SOLVING ADMINISTRATIVE DISPUTES COMPARABLE TO EUROPEAN SYSTEMS

Authors: Sladjana Eftimova, Macedonia

PAGE 76 - 87

Paper 11: CRIMES AGAINST OFFICIAL DUTY IN THE REPUBLIC OF MACEDONIA

Authors: DarkoMajhosev, Macedonia

PAGE 88 - 96

Paper 12: CRIMINAL PROCEEDINGS AGAINST CHILD

Authors: Marija Jovanova, Macedonia

PAGE 97 – 103

Paper 13: DETERMINATION OF FREQUENCY CERTITUDE OF OE SPINNING MACHINES

Authors: Slobodan Stefanovic, Serbia

PAGE 104 - 111

Paper 14: USE OF ICT IN DISTANCE HIGHER EDUCATION WITH SPECIAL REFERENCE TO INSTITUTE OF DISTANCE AND OPEN LEARNING OF GAUHATI UNIVERSITY

Authors: Sima Kalita, Samarjit Das, India

TRANSFORMATION AND ADAPTABILITY OF THE SPATIAL DISTRIBUTION OF DIFFERENT TYPES OF HOUSES ON THE URBAN CONCEPT IN CITIES FROM 19TH CENTURY IN MACEDONIA

Petar Namicev PhD professor

University of Goce Delcev, Faculty of Natural & Technical Sciences,
Shtip, Macedonia, petar.namicev@ugd.edu.mk

Ekaterina Namiceva

Master student on Architecture at Polytechnic, University of Milan, Italy,
kate_nami@hotmail.com

Abstract: The spatial layout of the houses of the 19th century, their transformation and adaptability, directly participate in the historic spatial planning of cities from the 19th century. In the process of the settlement formation, different models of houses are applied to specific urban cores, where the bulk structure of housing facilities directly affects the shape of the city. Characteristic are several models of urban houses, with different access; open concept using open porches on the ground floor combined with the yard, or concept of the closed facilities, where the dimensions are set of the building and the yard. The choice of construction materials creates a spatial and volumetric concept, which directly affects the urban form of the city. Forming certain found of street networks, public spaces and neighborhood centers, creates a specific character and structure of the urban content in the cities. In that way directly with the chosen model of a house, the placement in terms of the urban concept, oriented on a steep hill towards a watercourse or lake, creates the whole concept of urban settlement. The existence of a number of factors, which originate from the form of a house, construction system, adaptation of the space to the human anthropometry, the applied materials from the environment, with natural color variations that carry other specific elements, directly affect the ability for transformation of the form of the house to the principles of the urban form of the city from 19 century. The transformation and adaptability of the house from the 19th century, created some impact from the single buildings on the overall image of the city.

Keywords: house, space, transformation, urban, adaptability, alley, yard

Introduction

The cities of the 19th century in Macedonia have a certain urban structure, based on the history throughout the centuries, which developed in the spatial concept in certain historical frameworks. The size of the cities ranged from five thousand (Kratovo, Kriva Palanka, Berovo) to some ten thousand inhabitants (Bitola, Skopje, Veles). The urban spatial concept contained the Bazaar as a driver of economic functioning of the city. In the bazaar were mostly individual shops, the center of the market, administrative buildings and all contents that were vital for urban tissue. With the increase of the economic potential of the population, the development of the urban bourgeoisie, the cities were increasing the areas, with settlement in suburban areas, formed over time urban settlements, with certain infrastructure (Чипан, 1978). The adaptability to the type and capacity of the houses for their transformation, are expressed by increasing the surface, adjustment of the porch to the initial forms, to the most demanding complex spatial objects. The position of objects in certain parts of the city depending on the urban treatment, is experiencing a certain transformation in the direction of

approaching the heart of the city, as a result of expansion of the city, certain neighborhoods are transforming from suburban to the central city core. The construction of the buildings enables certain transformation of the spatial sizes, and therefore of the forms of volumes, within the urban fabric and direction of the changes that are necessary according to their changing status.

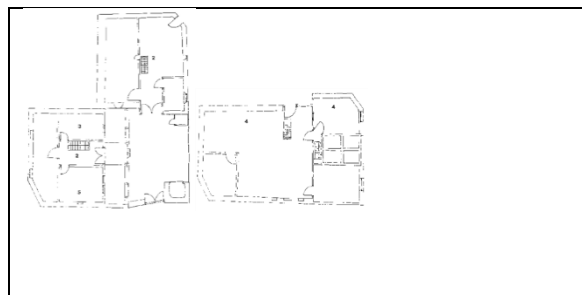
The diversity in the application of spatial concept of the houses vertically and horizontally has been practiced with certain form and style features that corresponded with the status of the user. The urban concept of the road network is formed despite the impact of the form of housing facilities and of the required infrastructure and its proper functioning. The shape of the alley or street is based on the implementation of its construction materials, the way of vital functioning of the ground, in different climatic conditions, the adjustment to other urban spaces (squares, neighborhood centers and other types of collective areas of the city). The result is a harmonious system of movement throughout the road network, which is derived from their practical implementation, like communication and public spaces that meet their elementary function in a similar form of organic structures taken or accepted from the experience and attitude towards nature. In this way we are confirming the legitimacy of the choice of form in the urban access of any street that is coming from the very needs of users, through a long period of time. The existence of a rich history throughout several centuries, the cities show a sense of satisfying all physical and social needs of the individuals (Kojic B.1978).

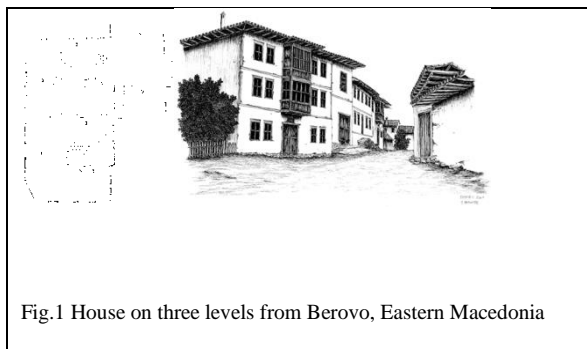
The model of a house derived from spatial pattern of two different concepts,

the Mediterranean spatial concept and Byzantine tradition. There is impact from the different concept of organization of Muslim and Christian families. That shows the concept's opening of the Christian house to the outside space, which is opposite to the closed yard of the Muslim concept of using the space. From this it becomes evident the irregular area of the winding streets, the volumes of houses springing up everywhere and the structure that adapts to the image of the city landscape at different levels, with interesting effects. All this is the result of a comprehensive analysis of space on the location of the buildings, carefully selected location for construction, where the relationship towards nature and neighboring buildings is respected and are formed by certain qualities of respect for the environment.

Analysis of the adaptability of different types of 19th century houses in Macedonia

Although it cannot be strictly defined a certain typology of spatial concepts in residential buildings, according to some components we can define certain types of commonly applied models. The criteria for typological analysis can be based on the height of buildings, constructive materials, spatial concept and the urban setting towards the city.





According to the height of the buildings and their spatial representation of certain rooms, we can single out a few basic models, although we cannot precisely speak of some typical schemes, due to the diversity of the solutions in the different conditions of the location. Mostly are built ground buildings, and later with first floor, as most solutions are the houses of three, four and five levels, in the most mature phase of spatial structures in the 19th century.

- *Ground buildings* are characteristic of the initial stages of development of houses, especially in suburban locations where in the first period was transferred the module construction of the village settlements. The facilities consisted of several rooms that were related to open space (porch or veranda). The yard was a modest area to meet basic needs, which now in the city there is no need of a garden or similar purpose. Satisfying the need for frequent transformation of space, which means adding new facilities or partition of the existing once, was easily achievable (Kratovo, Berovo- Fig.1.).
- In the most common case is used the model with *ground and first floor*, which corresponded to the needs of an average family. This

pattern was most widely used by developers during the development of cities, and adapted to the economic possibilities of the average Macedonian family from the same period. According to the spatial scheme the ground floor had limited opportunities for transformation of the space, as opposed to the upper floor where there was occasional transformation of the premises, because of the separation and formation of separate family unit from one of the members in the community (Struga, Skopje, Tetovo).

- The buildings developed in *several levels*, three four or five levels, presented spatial conception with high spatial, structural and aesthetic values. The fact of the existence of construction with several levels, at least to a level set in relation to the neighboring facility, meant providing better view, towards the lake (Ohrid) or overlooking the city (Veles, Kratovo, Fig.2.). These houses developed on several levels, created more opportunities for transforming space or adding new elements that were presented by European houses at the same period.

Regarding the choice of material for the constructive system the differences are variable in terms of size of the objects and the region of the location of the neighborhood. The constructive system was connected with the local way of construction, the availability of the materials used in the area and other. The variations in terms of the construction

systems are very small. Significant were the effects passed through the craft families that have worked in other areas and transporting certain building experiences.

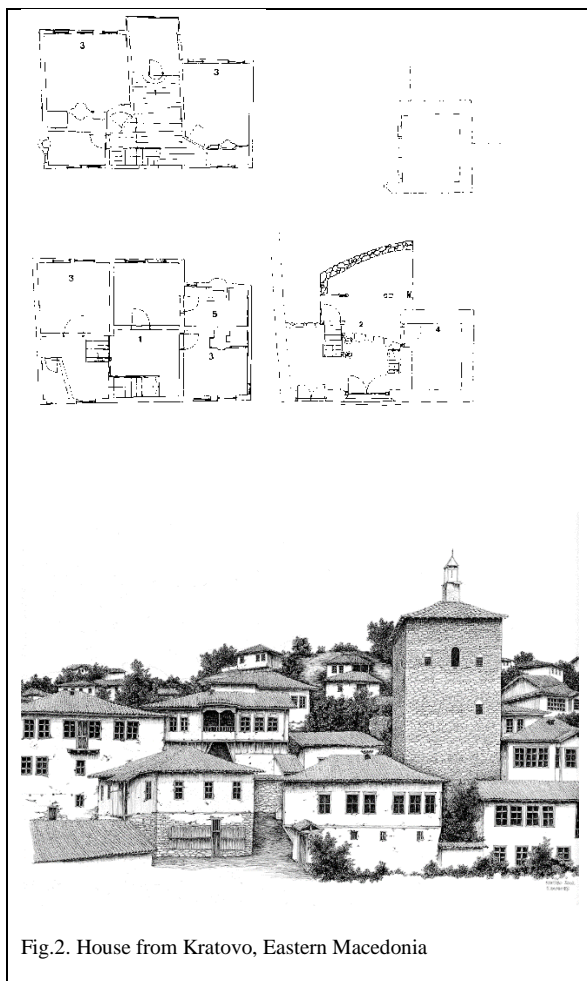


Fig.2. House from Kratovo, Eastern Macedonia

Certainly in some cities was formed a recognizable concept, which with specific elements was different from the traditional method of applying the stone wall on the ground floor and a wooden skeletal structure of the floor. In Krusevo townhouse from the 19th century, the stone was applied along the entire height of the building except the front facade, in which was applied wooden skeletal construction with mud plaster, with defined role of the decoration. In Ohrid, Veles, Kratovo the house has light construction on the upper floor, dominated by the volumes of the upper floor, which enable the building of four additional levels (Ohrid) .In the neighbourhoods of

the eastern part of Macedonia (Berovo, Strumica), and in the central parts (Veles), dominated the houses where in the entire height is applied the wooden skeletal structure system. In Krusevo townhouse from the 19th century, the stone was applied along system, up to four levels (GrabrijanD.1986).

The choice of materials for implementation has an important role in shaping the spatial concept of the house, and also the possibility of volumetric transformation, which directly operated on the concept of the urban image of the city. In this way the constructive system directly affected the typology and spatial concept of residential architecture.

The spatial concept of certain types of houses that have been locally defined as a module of a traditional residential building is important factor influencing the ability of adaptation of the facilities to the urban core. Spatial concept with strictly defined character arising from long-term adjustment to the concept of family needs, limits the possibility of its transformation and adaptation to other elements (streets, squares surface etc.), from the urban structure of the city.

Mean while the basic concept of the object is adapted to the practical needs of the user, to urban standards of the urban core, the spatial concept, the structure and the image of the city. In this way the spatial system of the house which has been proved successful and harmonious, adapted to the site conditions, to the neighbor, neighborhood concept that was developed through the concept of the houses across multiple generations with emphasis on socialization of the population. According to the spatial concept of the houses in Ohrid, Struga, it evolved in height, forming narrow alleys and adjusting to the steep hilly configuration, with views to the

lake(Fig.3.)There is similar concept in Veles where is achieved spacious view towards the city, with steep and dense terrain, and narrow and steep streets (Fig4.D.). Through the open porches is achieved spaciousness of the house and its adaptation to the urban image of the city. The relationship of the internal space, is with balcony and the environment, with view to the city landscape.

- In *Kratovo house* prevails the adjustment of the spaciousness of the house to the already established urban network of the urban core, to riverbeds, which are bridged by bridges. In the symbiosis between river basins, bridges and towers the house complements the urban landscape. According to spaciousness and height (maximum three levels), the house is set mostly in a row, oriented to the street. The spaciousness is possible toward the back yard, i.e., the riverbed, while the street from the front is formed by flat surfaces and small verandas (Fig.4.C.).
- *Krusevo house* has a specific closed concept as a facility, toward the yard, as well as to the urban concept of the city. Spatial composition of Krusevo house, which does not need additional adaptability to the environment or her need for increased functionality, the buildings participate visually in defining the silhouette of the city. Houses in Krusevo has a defined spatial conception which is rarely changed in the entire time of its existence.

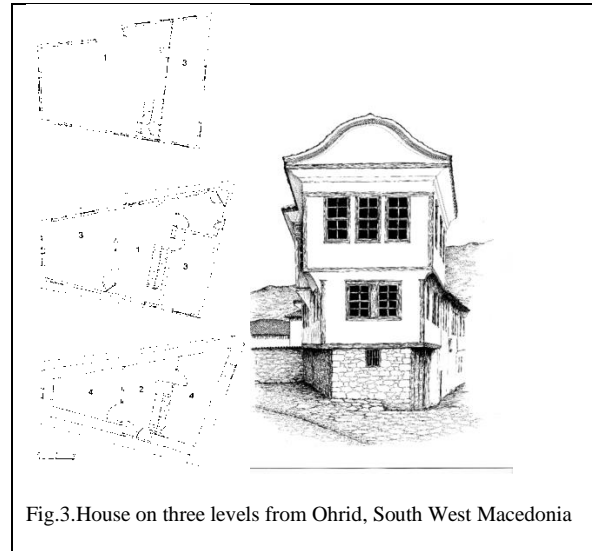


Fig.3. House on three levels from Ohrid, South West Macedonia

Positioning the city

The orientation of the house in relation to the overall image of the surroundings or to the whole picture of the city in different cities have different defined image. The buildings are oriented towards a neighborhood center, or to the street. According to the location of the city, if the schedule of the houses are placed on one side of the riverbed (Kratovo) or on both sides of the river (Kratovo, Veles) or lake (Ohrid) forming the basic concept of the urban character of the city. The orientation of the house has a secondary importance, after the line of sight and the direction to the dominant natural geographical landscape (river, lake, etc.). Following the basic concept of the settlement, it is necessary to respect the basic urban principles, while the possibility of transformation of the spatial concept of the house is always open, and has influence as an individual case, which fits into the overall picture of the city. We can highlight the adaptability of these buildings, to new urban content that in pursuing the urban contemporary movements are adapting to the changing new concept(Cerasi M.1986).

In the urban network of Kratovo, there is a situation of setting the buildings in a sequence which is dictated by the position of watercourses, thus obtained continuous silhouette of houses with urban network (Fig.4.A). In urban concept organized as in Veles we get urban street network with free-form adapted to the terrain, in the old already established, developed concept of the city (Fig.4.D).

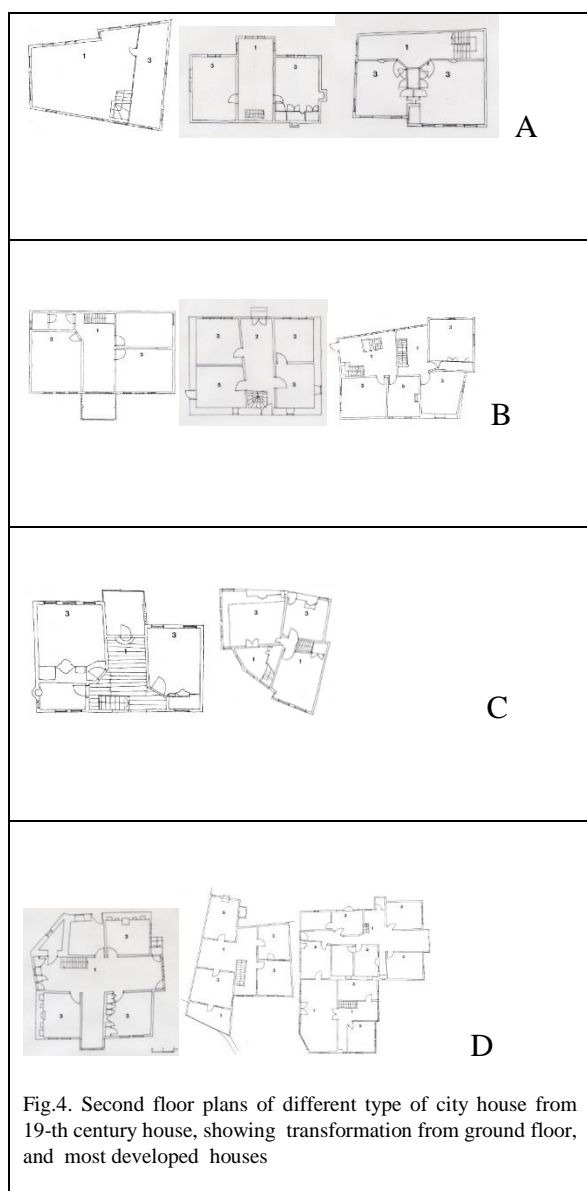


Fig.4. Second floor plans of different type of city house from 19-th century house, showing transformation from ground floor, and most developed houses

The influence of the house on the spatial concept of the city in the 19th century

The spaciousness of the house according to the scope of use of the space

has rationality, multi-purpose, multi-functionality, unlike the street or alley that is using its structure and minimalism in terms of useful space. The street according to its needs has dimension, depending on the intensity of pedestrian traffic and schooling, width of 2.3 to 5.5 m. In this way the space is streamlined with minimal dimensions of streets that are shaped with the stone walls of the surrounding yards; while optimally are satisfied all human needs. The concept of urban network complements the architectural - spatial concept of the house, which is adapted to the human needs.

The compliance of the approach of these two segments in the urban system of the city from the 19th century, speaks of the existence of a modern approach to the shaping of cities, with a human dimension, which at the same time builds harmonious panorama of the city. The human concept of inner space is transferred to the space and function of the alley, through harmonious dimensioned gate, paving stone, which from the street is related to the direction of the yard, and in the reverse direction. The transformation from public to private space is realized exactly on these boundary lines, where with the closed area of the gates and surrounding walls we are getting isolated private space. The concept of spatial solutions of the house, the ground floor with a useful space-porch is connected to the yard; its size will depend on the needs of the family. The ratio of useful area and the yard in a town house in different regions has certain variations that are directly dependent on the concept of the house. For example, in Kratovo, Veles, Tetovo, we have spatial solution in the ground floor by adjusting the dimensions of the porch (open space), to the spatial concept of indoor spaces (small chamber, house, storage etc.). In this way the spaces are flexible and adaptive, the transformation of the space and its

adaptability in an individual case. Usually the porch and the garden have an irregular geometric shape and there is no clear distinction between them. For other types of houses, usually closed type (Krusevo, Debar, Ohrid, Struga), the yard has strictly defined dimension that is beyond the closed- separate spatial concept of the house, mostly because of the strict regime of the road network where each section of it has strictly defined function.

In the upper floor is applied system of shaping the spatial contents, which in a certain way, through elements of communication are developing the contents- room, loggia and so on. The builder wanted to get some proper spatial and volumetric structure straightening the irregular shapes from the ground plan in regular and correct shape on the first floor. This concept is characteristic for a group of facilities types where we have diversity in the transformed ground shapes, into straight shapes of the upper floor (Veles, Kratovo, etc.). In this way the tendency to transform the spatial system in the correct geometric form creates conditions for oriels (bay windows) and extensions to the surface of the streets, where we get some creative composition. The objects with strictly defined line on all levels, without major concessions (Krusevo, Debar, Bitola, etc.), the volumetric form creates fewer opportunities for the transformation of the spatial form of the house, and unnecessary adaptability and wastefulness of the facility toward the structure of the city's urban matrix. In this urban concept the cubicle volumes are creating the impression of separate lots, monolithic cubes, which are placed in the space of the yard and equally act, without apparent influence, in the transformation and adaptation of the houses in the urban image of the city (Tomasella P.2003).

Applying the already mentioned urban elements (alley, courtyard room, loggia), their harmonious structural embeddedness, we get a functional unit, from differently applied modules forming the free open and closed spaces, which form a harmonious composition of spatial areas and Volumetric cubes of elements of the house.

Conclusions

According to the urban growth of the city from the 19th century in Macedonia, we can conclude several major influences on its form and transformations that affected the urban image of the city.

- *The close location of the parcels* for residential buildings was set by the field decline. The creativity in the synthesis of the different uses of spaces, as a whole dominates the ground floor with an extremely economical use of space. The ground level contains basements (poor, basement), porch, winter room, stairs etc. Due to the high elevation of the ground floor, the deck floor contains some facilities, winter room, utility rooms and so on.
- Due to the closed family life in the community and the safety of the home and yard, in line with the fence was built high stone wall. It was created a dense network of streets, alleys, which were with small width with trade cars and pedestrian movement.
- The second level and the other floors (in buildings with three or four levels, Ohrid) was realized by increasing the useful area, using the oriels (bay windows). Usually the bay volumes were part of the living

room or porch room. In this way was enriched the volume diversity with additional geometric forms and structures of the residential buildings, which formed a dynamic urban and spatial image of the city.

- The use of correct and incorrect inclinations of *roof surfaces* complement the structural diversity, through the application of building materials, ceramides with reddish coloration, etc.
- *The transformation of the space* was possible in different periods according to the family needs, where the larger rooms were reorganized, balcony rooms, porch etc.
- *Adaptability of the construction system*, which is based on its constant transformation, is creating conditions for changing the spatial composition, as needed. In this way the concept of visual image is constantly changing.

The existence of a large number of factors, which originate from the form of the house, its construction system, the adaptation of the space to the human anthropometry, the environmentally applied materials from the environment, with natural color variations that carry other specific elements, directly affect the ability for transformation of the form of the house to the principles of the urban form of the city from the 19th century.

All these mentioned factors influenced the continuous transformation of the urban context, its development and adaptation of certain modern directions of modern life, especially under the influence of the residential architecture and way of life of

European cities of the 19th and early 20th century.

Bibliography

Aladžić V. (2011) Compatibility, adaptability and use of different types of ground floor houses in 19th century town planning – case study Subotica, *SPATIUM International Review* No.25,pp.50-55

AndresD.(2008)Traditional Architecture and Urbanism, Review, Zell/Lurie estate center, pp.79-83

Burd G. (2008) The search for natural regional space to claim and name built urban place. *Journal of Architectural and Planning Research* 25(2):pp.130-144..

Cipan B. (1978) Makedonskite gradovi vo XIXvek i nivnata urbana perspektiva, MANU, Skopje

Cerasi M.(1986)La citta del levante, Civiltà urbana e architettura sotto gli Ottomani nei secoli XVIII-XIX, Jaca book. Milano

Grabrijan D.(1986)The Macedonian house, Mislja, Skopje

Kojic D.B.(1976)Stari balkanski gradovi, varosi i varosice ICS, IAUS, Beograd

Niković A.Đokić V,Marić I.(2014) Revising the position of a city block within the morphological frame of a traditional city: Contemporary perspectives,*SPATIUM International Review*, No.31, pp.1-6

Oliver P. (1988.) Enc. of vernacular architecture of the world, Cambridge Univ. Press

Tacoli, C. (1998) Rural-urban interactions: a guide to the literature. *Environment and Urbanization*, Vol. 10, No. 1, pp. 147-166.

Tomasella P.(2003) La casa degli slavi del sud, Architettura civile ed edilizia domestica in Macedonia (XIX – XX sec.), Edizioni Golardiche, Urbino

Yerolympos A.(1996)Urban transformations in the Balkans (1820-1920) Thessaloniki, University Studio press, 1996

EFFECT OF DROUGHT ON STRESS IN PLANTS

mr Jelena Markovic, Dr. Gordana Bogdanovic¹, Goran Marković, master-ekonomista²

¹Colledge of Applied Professional Studies, Filipa Filipovića 20, Vranje, Serbia; ²J.P.

Management Spa, King Petar I 121, Vranjska Spa, Vranje, Serbia

gogajeka94@gmail.com

Abstract: Drought occurs due to lack of water in the soil, as well as due to disturbances in the circulation of the atmosphere. The duration of the drought may be different, and droughts not only the lack of rainfall, but also erratic distribution of rainfall throughout the year. The intensity of droughts amplified high temperatures, low relative humidity and dry, hot winds. The drought in many areas of common occurrence that repeats without a discernible regularity. Although it can be found in almost all parts of the world, its characteristics vary from region to region. Defining drought is therefore difficult and depends on regional differences and needs, but also from the perspective from which to observe this phenomenon. In the broadest sense, the drought is due to the lack of precipitation over an extended period of time, leading to water shortages for some activities, group activities or an entire sector of the environment. Drought can not be viewed solely as a physical phenomenon. The occurrence of drought, because of the weather, a lot of influences and reflects on the plants and agricultural production.

Keywords: drought, plants, climate change, temperature and rainfall

MATERIALS AND METHODS

At the outset, it is useful to note the difference between aridity and drought. Aridity of a region indicates that there is a constant shortage of rainfall compared to normal or necessary values (in some regions, lack of rainfall is so long that these small values became normal) in that region. Aridity is a characteristic of the climate of an area. On the other hand, drought usually presents, short-term deviation due to precipitation and air temperature measurements of normal values for a given area and time of year. No matter what needs to define drought, it is essential that this definition includes the deviation of the actual relationship between precipitation and evapotranspiration in an area of normal

values of this ratio for a given multi-year data series. It is also important to take into account the temporal distribution (rainfall regime delay at the start of the rainy season, the connection between the occurrence of rainfall and phenological phases of major field crops in the study area) and efficiency of rainfall (rainfall intensity, number of rainy episodes). Other climatic factors such as high temperature, high speed and strength of winds and low relative humidity are often associated with the emergence of drought in many areas of the world and can significantly worsen its consequences. (Gliessman, 2000b).

Drought should not be seen only as a physical phenomenon and a natural phenomenon. Its impact on the whole of society is the result of interactions between natural phenomena (lack of rainfall compared to the expected value that is the result of natural climate variability) and requires people to have water constantly. People often exacerbate the effects of drought. Droughts in recent years have hit both developed and developing countries have had a significant impact on the economy and the environment of these countries by enhancing the vulnerability of the whole society to this natural disaster. In principle, there are conceptual and operational definitions of drought. (Wood, et al. 2000). The conceptual definitions of drought are formulated in general, aimed to help people understand the concept of drought. For example, it can be said that the unusually long drought period with a deficit of rainfall, which leads to extensive damaging plants of and reducing of yields. The conceptual definitions are also of importance when designing a strategy for

combating drought. For instance, the Australian strategy assumes that the drought resulting from normal variability of climate and financial assistance to farmers was granted only in the case of "extremely dry conditions" when drought is more intense than "normal".

The term "normal" drought defined on the basis of scientifically based studies is for certain areas. In this way the situation in which producers, due to lack of well-defined conditions every few years sought the support of the state for the repair of damage caused by drought, is avoided. The operational definition of drought should help to define easily the start, end and intensity of drought. The start of drought is usually defined as the moment in which the amount of rainfall in a given amount deviate from its medium or normal values for a given area. This is usually done by comparing the observed values of meteorological elements with their 30-year-old average. Limit value deviation for many purposes, unfortunately, is more often than estimates are determined on the basis of precise relation between individual effects and / or parameters that describe the drought.

One of the operational definition of agricultural drought is based on a comparison of daily rainfall and evapotranspiration intensity in order to determine the intensity reduction of moisture content in the soil. Then this relationship is connected with the behavior of plants (vegetation dynamics and yield) in different phenological stages. One such definition could be used for purposes of operational assessment of the intensity of droughts and their effects on monitoring of meteorological elements, the moisture content in the soil and the growth and development of plants during the growing season, with continuous correction of the influence of these factors on the yield of the harvest (or reading). Operational definitions of drought can also be used to analyze the frequency, severity and duration of

droughts observed during the historical period. However, these definitions mean time, daily and monthly meteorological data as well as data about the effects of drought on, say, agricultural production (change in yield components and yield, etc.). Detailed knowledge of climatology drought in a region enables better understanding of its characteristics and the probability of repetition with different intensity. Information of this kind are extremely useful in developing strategies to combat the negative effects of drought. Drought can be divided into three groups:

Meteorological - a large area with a considerable lack of rainfall compared to the normal value for a specific area and time of year;

Hydrological - characterized by a drop in water levels in lakes, rivers, and groundwater level decrease; agricultural - appears in the vegetation period when soil moisture and rainfall is insufficient to allow the plant to enter the stage of maturity, while damaging them; atmospheric - a longer period without rainfall which according to high temperature and low humidity accompany.

Meteorological drought is defined the degree of aridity (compared with a normal or average values for the selected period) and during a dry period. The definition of meteorological drought depends on the region. Due to atmospheric conditions that lead to a deficit of rainfall, it differ dramatically from region to region. For example, some definitions of meteorological drought are based on identifying a period in which rainfall was less than lower limit values. This definition is only suitable for areas which are characterized by a certain regime of precipitation throughout the year as is the case in tropical rain forests, humid subtropical climates or humid climatic zones of moderate width. (Penzar, Makjanić, 1978). In other types of climate, characterized by a lack of rainfall over a longer period of time, the definition of

drought based on the number of dry days is not applicable. Some other definitions of meteorological drought are usually associated with the transfer of accumulated amount of rainfall from the mean values for the month, season or year. Agricultural drought links various characteristics of meteorological (or hydrological) drought with their impact on agricultural production focusing on the reduction of rainfall, the difference between actual and potential evapotranspiration soil moisture deficit, reducing groundwater levels and so on. Requirements for water plants depend on the weather conditions, the biological characteristics of the plant, stage of development, as well as physical and biological characteristics of the soil. The

correct definition of drought should take into account the variable sensitivity of plants to drought in various stages of its development from germination to full ripening. The deficit of moisture in the surface soil layer at the time of sowing can make it difficult for germination leading to a reduced number of plants per unit area, and the reduction in yield (Figure 1). However, if the moisture content in the surface layer of soil is sufficient for normal growth and development of plants in the early stages of vegetation, moisture deficit in the deeper layers in these phases will not affect the yield at harvest time (if these stocks replenish moisture during the growing season or if precipitation satisfies plants with moisture).



Figure 1. Effect of drought on agricultural crops Figure 2. Effect of drought on plants

Hydrological drought is associated with the occurrence and effects of the lack of rainfall in overhead and underground reservoirs (lakes, groundwater, artificial reservoirs). The frequency and intensity of hydrological drought is often defined at the level of a river basin. Although the cause of three drought still lies in the lack of rainfall, hydrologists are much more interested in how the shortage will affect the entire hydrological system. The occurrence of hydrological drought is often a phase shifted, with significant delay in relation to meteorological and hydrological drought. In fact, it takes more time to have effects of lack of rainfall within the elements of the hydrologic system in terms of reducing the moisture content in the soil, reduced water levels in rivers and underground and above accumulation. From this reason, the

economic effects of hydrological drought in all spheres are caused by meteorological drought. For example, the rainfall can cause a lack of moisture in the soil, which, together with its effects, is currently visible for agronomists, and the production of electricity is affected in a few weeks or months. Also, water from water reservoirs is used for different purposes (irrigation, tourism, flood control, electricity generation) which further analysis of the effects of hydrological drought are further complicating. During the drought, the need to use water from reservoirs leads to conflicts among users of these stocks. Although the weather conditions are the primary cause of hydrological drought there are other factors, such as land use (eg noise reduction.), Degradation of land or building embankments may affect the hydrological

characteristics of the observed basin. (Jankovic, 1971). Considering that the regions are interconnected with hydrologic systems, the effect of hydrological (and weather) drought can significantly extend beyond the place where it was made. Also, changes in land use may affect its hydrological characteristics such as infiltration and runoff intensity, leading to greater variability in water flow and greater likelihood of hydrological drought in the downstream region. Changes in land use are an example of how human activity can affect the frequency and the intensity of the lack of available moisture (water) even when there is no meteorological drought.

Drought stress as a factor

Tolerance to desiccation or drying out (DT) is defined as the ability of cells to lose water to equilibrium with the surrounding atmosphere at medium or very dry conditions and then "revive" compensating protoplasm water at the time when the water in the environment becomes available again. (Oljača, 2008). Tolerance to drying out should be distinguished from tolerance to drought. The term drought refers to the lack of water in the environment, while the term drying refers to the loss of water in the cell. There are two types of tolerance to drying out: the constitutive and induced one. Mosses and lichens are characterized by constitutive tolerance: fast drying and rapid rehydration, which depends only on the reactivation of the enzyme systems that have remained intact during drying, and they are referred to as "real" plants. Mosses and lichens survival are based on reparative mechanisms that are activated very quickly after rehydration. Ferns and angiosperms have induced tolerance to desiccation, and are referred to as "modified" plants. Under certain conditions, these plants can tolerate a large and long drought but show little resistance to desiccation if it happens suddenly. Many plants can dry out. That type of plants belonging to the that unfavorable conditions survive and whose water potential coincides with water

potential of surrounding environment in which these plants live. In this group of plants there are a large number of mosses, ferns (*Asplenium ceterach*), as well as some vascular plants like *Ramonda serbica*. Procedures (methods) that are commonly used for drought tolerance are:

Disposal of drying- ability of tissues to retain moisture; for example. succulents; Tolerance drying - tissues have the ability to work in a dehydrated state; Avoiding drought - complete their life cycle during the wet season; Mechanisms of recovery

One of the strategies of plants in the loss of water is passive closure apparatus due to a direct loss of water from cells sealer. (Kojic, 1988). The second mechanism is Shaping the closing of stomata, which depends on the metabolic processes in cells sealers and occurs when the entire leave is dehydrated. The regulation mechanism of opening and closing apparatus and regulates hormone Abscisic acid (ABA). Transcription of many genes that are activated in response to water deficit stress under the control of ABA. However, some of these genes does not affect ABA. ABA also affects the expression of genes that increase tolerance to low temperature and salinity. The drought indices leads to useful information for predicting and combating drought of raw, or measured data. There are several indices that show how much rainfall and its distribution in the reporting period deviates from the mean amount of rainfall for for least 30 years for the given time unit. Although a single index can not be declared superior to the other (s), though some are more often applied, tested and calibrated in different regions and for different plant species than others. Most experts dealing with the planning of water resources, primarily in agriculture (irrigation) usually based their decision on a number of different indices.

a) Percentage deviation from the norm (percentiles) is an index that is easily applied to different spatial and temporal scale and is suitable for the comparisons

(advantage), but can easily lead to misunderstandings and misinterpretations because what is considered normal in meteorology often does not coincide with the usual, ie. the expected conditions (lack of).

The percentage of deviation from normal is calculated as the ratio of the actual and normal (average of at least 30 years of age) precipitation in the observed time unit multiplied by 100%. It can easily be determined for any time unit including phenological phases, vegetation period or hydrological year.

b) Standardized Precipitation Index (SPI Standardized Precipitation Index) SPI is an index that is based on the calculation of the probability of precipitation for the selected time period. Many users appreciate the flexibility of the index in terms of spatial and temporal scale at which it can be applied and in a wide practical use. In addition to being able to account for different weather conditions, SPI can provide early warning of drought and assist in the evaluation of drought intensity, but it is less complicated to calculate the index of Palmer (advantage). Many index values must be corrected in accordance with changes in the input data. Calculating the SPI index for any location is based on a multi-year series of precipitation data for the selected time unit. (Milosavljevic, 1976). Based on rainfall for selected time unit it is calculated by their probability in the time unit, then it is transformed into a normal distribution so that the average SPI for the observed location and selected time unit equal to zero by using data from the table with the values of SPI index and corresponding features it can be concluded that this index provides not only information about the severity of the drought (which corresponds to the value of the index when it is less than 0), but also

its duration. It is considered that the drought period begins when the index falls below 0 and lasts until it becomes positive.

EXPERIMENTAL

The impact of drought on plants

The external manifestation of insufficient supply of water is expressed in wilt or loss of turgor, limp and relaxed tissues of leaves and trees. If the drought lasts longer, harder turgor is restored even in wet habitats, wilting becomes permanent and leads to the death of the plant. Atmospheric drought evaporation is very high, which means that intense transpiration is possible. It so can cause degradation of the water balance of plants, in which case the plant begins to wither. When the temperature is very high it leads to heat stroke and death of the plant due to the high temperatures and intense solar radiation, whereby the destruction of the protein in the plant. More dangerous than the atmospheric soil is land drought. Dry land can not supply the plants with water, so that they lose water from their tissue, which slows their growth. In extreme cases, the growth stops (Figure 2). All parts of the plant are not equally susceptible to the effects of drought. For example, the leaves at the tops of the plants and pruning tolerate drought because they take the water of the lower leaves and thus are more able to perform photosynthesis. Also, the leaves on top deduced and minerals from the lower leaves, and thereby during drought they suffer most from the lower leaves. Table 1 shows the mean of daily precipitation amounts that are insufficient and that encourage drought, and thus negatively affect crop production and cause wilting of plants. The values of precipitation were measured by the advisory expert services in Vranje, for different years.

Table 1. Mean daily temperature and precipitation in a year and the vegetation period

| | year | t. god (mm) | t v. p. (mm) | p. god (mm) | p v. p. god (mm) |
|----|-----------|----------------|-----------------|----------------|---------------------|
| 1 | 2001/2002 | 12,2 | 20,0 | 456 | 145 |
| 2 | 2002/2003 | 12,8 | 18,1 | 693 | 520 |
| 3 | 2003/2004 | 12,2 | 19,3 | 356 | 244 |
| 4 | 2004/2005 | 11,8 | 20,1 | 481 | 262 |
| 5 | 2005/2006 | 11,2 | 17,9 | 622 | 357 |
| 6 | 2006/2007 | 11,0 | 18,1 | 794 | 471 |
| 7 | 2007/2008 | 11,3 | 18,6 | 578 | 332 |
| 8 | 2008/2009 | 13,5 | 19,4 | 591 | 319 |
| 9 | 2009/2010 | 12,1 | 19,3 | 498 | 195 |
| 10 | 2010/2011 | 12,7 | 20,0 | 530 | 288 |
| 11 | 2011/2012 | 12,0 | 18,5 | 980 | 603 |
| 12 | 2012/2013 | 12,1 | 19,7 | 455 | 225 |

Maximum temperature was measured in 2001 and 2009 during the vegetation period. As you can see the maximum temperatures are monitored and the minimum value of rainfall, so the

occurrence of drought was obvious. The vegetation period fell only 145 mm. Lack of soil moisture was monitored by main field crops.

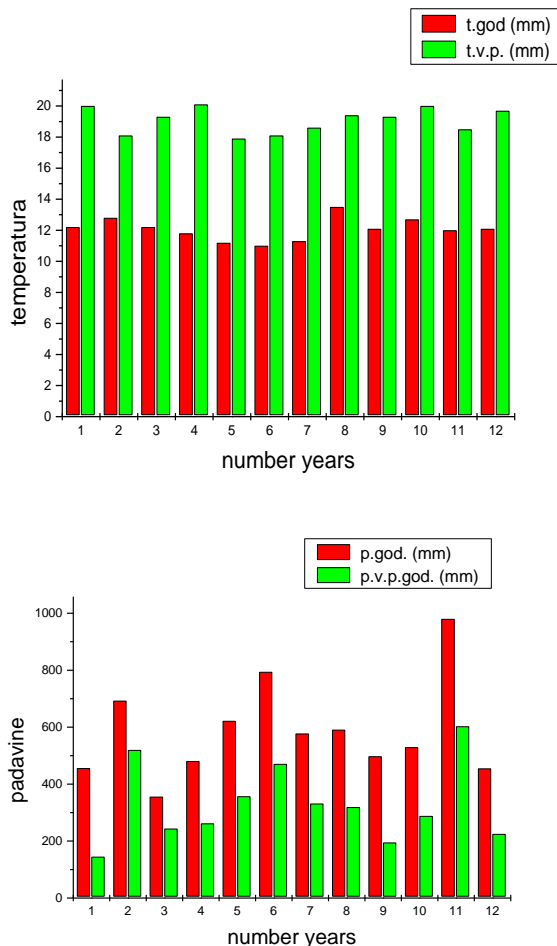


Figure 3. Mean of daily temperature (left) and precipitation (right) and annual vegetation period

Figure 3 shows diagrams that show how to change the temperature or precipitation in a year and the vegetation period.

When the drought started, the agricultural sector is usually the first target because of its extreme dependence on the moisture content in the soil that can be reduced rapidly if drought persists. If you extend the duration of the rainfall deficit, then the other sectors that depend on water resources will be mobilized to attack. Depending on the previous water supplies and hydrological characteristics of the system, the short-term drought (3 - 6 months) sectors that depend on water supplies in overhead and underground reservoirs will be least affected by drought. However, if the drought persists, this reservoir will be

emptied. It should be borne in mind that the fastest recovering from drought sectors react to it, foster while those who are slower to react (hydrological systems) need more time to recover.

Methods of protection against drought Good knowledge of the local climate is of great importance for the effective protection of plants against drought. There are several basic methods for protecting groups against drought:

Selection and genetic testing to create new varieties resistant to drought or those that could be easily regenerated after drought.

Geographical tests allow the planting of exactly those kinds of plants in a particular area that can easily tolerate climatic conditions prevailing in the area, which further entails the economy. Cultural practices that have different impacts on water regime and other factors. Agro-technical measures aimed at increasing the provision to plants humidity: Irrigation improves soil water regime and changing climatic conditions of ground air layer and thermal regime of land. Specifically, when the soil moisture increases, it affects the increased evaporation temperature which land surface and the surrounding air falls, and grows its moisture. Irrigation is the measure most commonly used in the fight against drought and represents the biggest change in the functioning of agroecosystems.

Proper land cultivation can retain moisture and prevent its excessive loss from the soil. This is done by converting the so-called. nonstructural land in structural (with better water regime). Plowing of habitat has impact on reducing water loss from the soil during the summer period, after the harvest of small grains. Plowed can also suppress weeds that are large consumers of water. Wallowing is a measure that regulates the flow of water in combination with evacuation of, cultivating and tending to other crops. Deep autumn tillage significant measures, which contributes to the

accumulation of moisture during the autumn and winter. The land to be treated in the autumn, the winter, due to winterkill of truth and easier to prepare for spring sowing. Organic fertilizers (manure) increases the humus content, thereby increasing the ability of soil to retain moisture.

Wind protection forest belts affect the wind regime over smaller areas by reducing evaporation, increasing soil moisture and air, preventing snow removal, etc.

CONCLUSION

Drought should not be seen only as a physical phenomenon and a natural phenomenon. Its impact on the whole of society is the result of interactions between natural phenomena (lack of rainfall compared to the expected value that is the result of natural climate variability) and requires people to constantly have water. People often exacerbate the effects of drought.

Droughts in recent years have hit both developed and developing countries have had a significant impact on the economy and the environment of these countries by enhancing the vulnerability of the whole society to this natural disaster. In principle, there are conceptual and operational definitions of drought. In terms of atmospheric drought evaporation is very high, which means that it is possible and intense transpiration. It so can cause degradation of the water balance of plants, in which case the plant begins to wither. When the temperature is very high and leads to heat stroke and death of the plant due to the high temperatures and intense solar radiation, whereby the destruction of the protein in the plant. More dangerous than the atmospheric soil characteristics (land) drought. Dry land can not supply the plants with water, so that they lose water from their tissue, which slows their growth. In extreme cases, even the growth stops. Insufficient supply of readily available soil moisture leads to a reduction in the

volatility of grain yields of all crops and not just those that we analyzed. Because of the variability of climatic factors, some of which are key precipitation, water supply with cultivated crops is insufficient. The analysis showed that climate variability can be solved only by additional.

A good plan can protect plants from even the most intense drought. The biggest determinant of drought is the amount of rainfall, followed by temperature and other climatic elements. Planning of the drought involves preparing not only for average annual balance of these factors, but also for the extremes.

REFERENCE

1. *Janković, M.*, 1971., Fitoekologija sa osnovama fitocenologije i pregledom tipova vegetacije na Zemlji, Naučna knjiga, Beograd, 550;
2. *Gliessman S., R.*, (2000b) Agroecology, Ecological processes in sustainable agriculture. Lewis Publisher, London, New York, Washington D. C. 330p
3. *Kojić M.*, (1988), Botanika, Naučna knjiga, Beograd, 523pp
4. *Oljača S.* Agroekologija, 2008, Poljoprivredni fakultet, Beograd-Zemun, I izdanje
5. *Milosavljević, M.*, 1976., Klimatologija, Naučna knjiga, Beograd, 257;
6. *Penzar, B., Makjanić, B.*, 1978., Uvod u opću klimatologiju, Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, 197;
7. *Van Der Gulik, T.W., Williams, R.J.*, 1988., BC Frost protection guide, Irrigation Industry Association of British Columbia, 43;
8. *Wood, S., Sebastian, K., Scherr, S., J.*, (2000) Pilot analysis of global ecosystems, Agroecosystems, IFPRI and World Research Institute, Wasington D.C., 110pp

COMPARATIVE ANALYSIS OF INDICATORS OBTAINED BY CORINELAND COVER METHODOLOGY FOR SUSTAINABLE USE OF FOREST ECOSYSTEMS

Mr. Slaviša Popović¹, dr. Miroljub Mitić¹, MSc Jovana Džoljić²,

¹Serbian Environmental Protection Agency, Belgrade, Serbia E-mail: slavisa.popovic@sepa.gov.rs

² College of Applied Professional Studies, Vranje, Serbia E-mail: jovana.dzoljic@visokaskola.edu.rs

Abstract: Serbian Environmental Protection Agency followed international and national indicators to do monitoring of forested landscape area for the period 1990-2000. Based on the data obtained by Corine Land Cover methodology following the indicators like Forest area, Forested landscape, Forest land and Forest and semi natural area, analysis was done. The forested landscape indicators analysis helped trends monitoring during the period from 1990 - 2000 year. Dynamic of forested area changes could have direct impact on the practical implementation of indicators. Indicator Forest area can be used in planning sustainable use of forests. Recorded growth rates value in 2000 year, compared to the 1990th is 0.296%. Indicator Forested landscape increase for 0.186% till 2000 year, while the indicator Forested Land recorded value growth rate of 0.193%. Changes in rates of those indicators can be used in the future for "emission trading". The smallest increment of rate change of 0.1% was recorded in indicator Forests and semi natural area. Information given by this indicator can be used for monitoring habitats in high mountain areas.

Keywords: *indicators, forestry, biodiversity, habitat*

INTRODUCTION

Various and numerous indicators of forestry and forested landscape are in use in Europe. Some of them are standardized on the Ministerial Conference of the Forests Protection in Europe. Each of them is adapted to the situation on the field in a country. One of the universally adapted methodologies is Corine Land Cover. Regarding to it and to the given data for the time period of 1990-2000, Serbian Environmental Protection Agency formed four indicators for monitoring forest area. Those indicators are: Forest area, Forested

landscape, Forestland and Forest and semi-natural land. Those indicators are overlapping each other in some parts, but also they are different in some segments. Due to the mentioned fact, for the monitoring changes in vegetation dynamic, every single indicator was analyzed. Resulted information is very important for specified area (spatial characteristics) as well for the dynamic trends (temporal characteristics). Information obtained from these indicators can be used for vegetation analysis of entire territory of the state or its parts, or for different economic analysis.

The main parameters for indicators creation and qualification in the Serbian Environmental Protection Agency (SEPA) was their compatibility with standard indicators at European Environmental Agency (EEA), compatibility with other international institutions and last but not least, qualification at national level.

This article deals with analysis of forestland indicators based on the results of Corine Land Cover methodology for the period 1990-2000.

1. METHODOLOGY

According to the criteria defined by Corine Land Cover (Bossard, Feranec, Otahel, 2000) forest trees in temperate climatic zone are above 5m high and their crown soil coverage is at least 30%. Each of these classes is determined by using the following criteria:

- Broad-leaved forests (class 311) - include area composed of primarily trees including low bushes and shrubs. In the case of plantation, crown trees cover more than 30% of the soil or planted plantation has 500 plants per hectare, where deciduous trees are over 75%;
- Coniferous forests (class 312) – include vegetation formations primarily composed of coniferous trees (more than 75%) including low bushes and shrubs, or plantations of conifers which represented over 75% of the total number of plants;
- Mixed forest (class 313) - include vegetation formations, composed primarily of the trees including low bushes and shrubs, where do not dominate neither broadleaf nor coniferous species. In the case of plantation trees, crowns cover more than 30% of the soil or planted plantation has 500 plants per hectare.

In this article, other classes are not described closer except for leads. Following indicators have been analyzed: Forest area, Forested landscape, Forest land and Forest and semi-natural area.

2. METHODOLOGY & RESULT

2.1. Forestland indicators

FOREST AREA

This indicator has the strictest criterion for counting because it includes only compact forest area larger than 25 ha. All major forest complexes are covered by this indicator. It can be used both for planning in forestry, as well as for the habitat biodiversity analysis.

According to Corine Land Cover in 1990 year, Forest area in Serbia (without data for

the territory of Kosovo and Metohija) amounted to 2,259,643 hectares, or 29.13% of the territory.

$$311+312+313= 26.668 + 0.99 + 1.46 = 2$$

$$259\ 643\ ha = \mathbf{29,13\%}$$

Using the same methodology and data, but for the 2000 year (Figure 1), forest area in Serbia (excluding the territory of Kosovo and Metohija) occupied 2,266,333 ha, which represents 29.2% of the territory.

$$311+312+313 = 26,664+1,05+1,5 = 2\ 266$$

$$333\ ha = \mathbf{29,21\%}$$

In Central Serbia, forest area occupied 2,126,099 ha, which represents 37.72% of its territory, and in Vojvodina, 140 234 ha, which represents 6,61% of the territory of Vojvodina.



Figure 1: Corine Land Cover 2000.

According to the National Forest Inventory (Ministry of Agriculture, Forestry and Water Management of Republic of Serbia, Department of Forests, in the press) Serbia

has 2,252,400 ha of forests, representing 29.1% of its territory. The results of the National Forest Inventory were conducted by a completely different methodology, but they are very similar to the data obtained by the indicators. This coincidence seemed very encouraging for the forest areas in Serbia.

On the other hand, it should be kept in mind that Corine Land Cover methodology analysis planar surface, while the National Inventory methodology is based on the cadastral area, which happens to be much more than geography. Therefore it is expected that the cadastral area of forest is much larger, considering the fact that they are particularly characteristic of hilly-mountainous regions of Serbia.

FORESTED LANDSCAPE

Forested landscape describes land area under vegetation which is forest or it has environmental aspect very similar to the forest. This means that it doesn't have to meet the criteria of the forest compactness, because its eco-physiological aspect has a very similar structure of the active area of plant cover (leaf surface), and thus significantly participate in the "production" of oxygen and the emission capacity. On the other side this fragmented forest area between or around the meadow areas and shrubs provide greater habitat diversity and thus affect the increment of overall biological diversity of landscapes.

This indicator considers also many fields and other agricultural areas are "intersected" by the trees and forests particularly in the rural areas (e.g. class 324 and 243), and they are taken into the calculation of forested landscape area. So, different European countries have different criteria for calculation area of forestland indicators that depends on the degree of discrimination between different classes of

intermediate shapes and sizes and their own share in the total area. In developed countries, for example in Germany, there is a clear discrimination between forested and non-forested (agricultural or artificial) area, but also it has a small representation of the surface transition, complex surfaces. Area of the class 324 (transitional woodland-scrub) is represented with less than 0.5% of the total area, and the integrity credited with forests, a class of 243 (land principally occupied by agriculture, with significant areas of natural vegetation) is less than 2.5% (Keil, Kiefl, Strunz, 2005).

Contrary to the situation in developed countries, in Serbia, nearly a quarter of the territory (about 24%) is under cover of vegetation which has the complex nature and represents some form of transitional stages. These classes represent succession stages in the process of afforesting, or stages in the process of degradation forested surface. These areas occurred primarily in rural areas of higher altitude hilly-mountain areas of central Serbia. In Serbia, class 324 (transitional woodland-scrub) is represented with 6.1%, and class 243 (land principally occupied by agriculture, with significant areas of natural vegetation) with 15.8%.

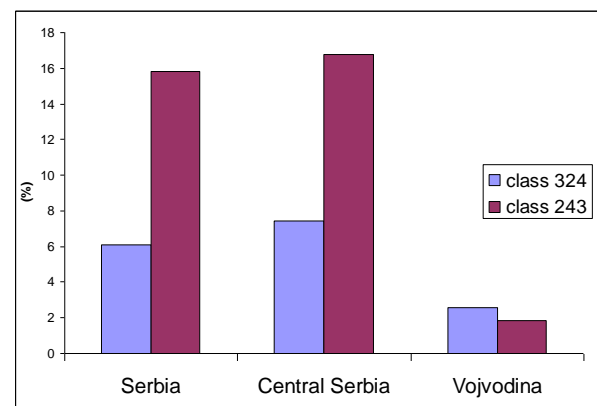
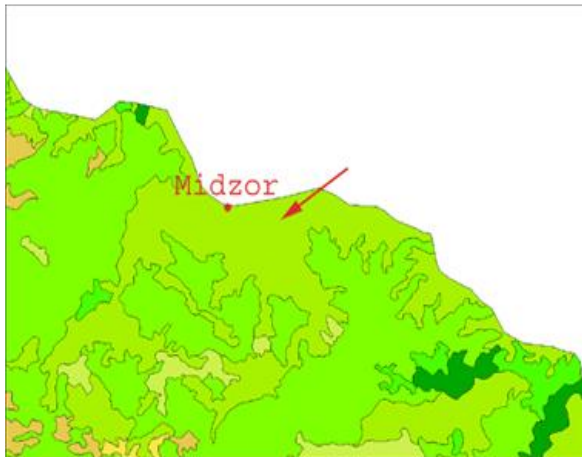


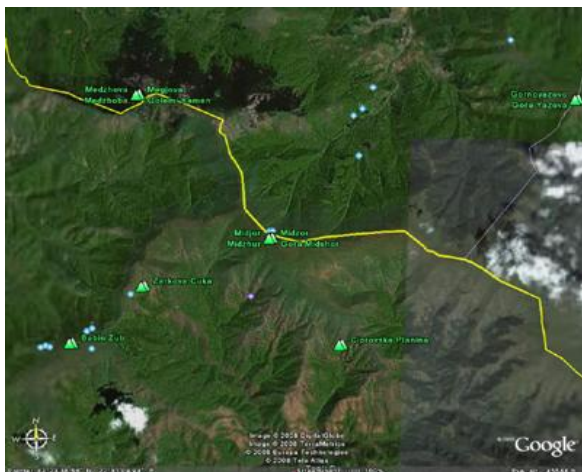
Figure 2. Presentation of class 324 and 243 in Serbia 2000th.

Class 324 is defined as the region with shrubby vegetation and scattered trees. It

may even represent stages of degradation and / or regeneration of forests. The class 324 includes small parcels of lands surrounded or intersected by forests. Regarding the current trend of emigration from rural areas, all former fields and pastures became abandoned, so the processes of natural succession continue to lead it to the forest type vegetation. In other cases, damaged forests areas or forest over-visited by other processes (fires, disease), are also included into calculation. One illustrative example of the class 324 is the region around the peak Midzor (2168 m) in the Staraplanina.



A



B

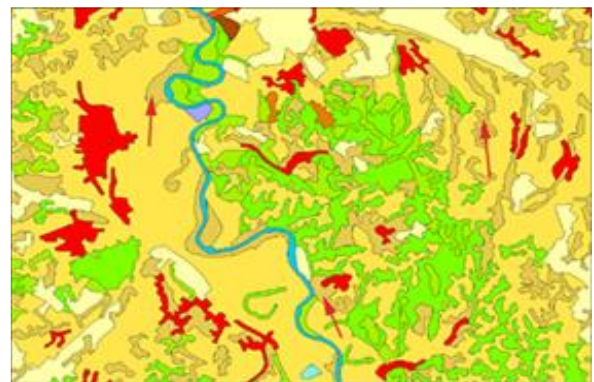


C

Figure 3. Midzor. A- Corine land cover 2000, B- satellite imagery, C- images.

This is an area of 7,000 ha of class 324, which is completely surrounded by broadleaf and coniferous trees (class 311 and 312). But, regarding the images from the field, at least half of this area can be considered as a forest.

Class 243 is defined as a predominantly agricultural area with a significant proportion of natural vegetation. Agricultural land covers between 25% and 75% of the total surface area of this class. The natural vegetation in this class includes natural grasslands or forest mainly in the vicinity of a village. For example, this class is represented in lowland area near river Morava, but also in hilly-mountain areas by forest edges.



A

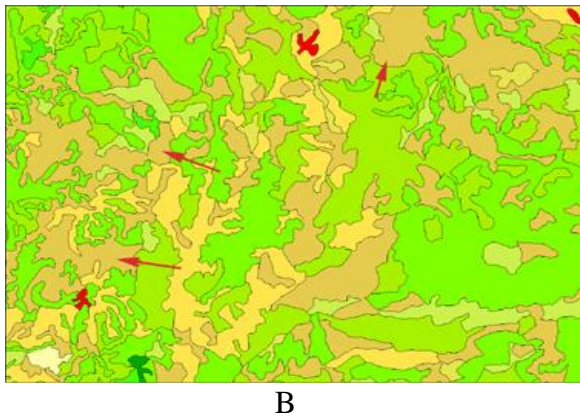


Figure 4. Class 243 Corine land cover 2000th. A- near river Morava, b-in mountain areas. Red arrows indicate areas 243rd class.

Forested landscape is a category that, obviously, is not completely identical to the indicator of Forest land. Category Forested landscape includes not only forest area, but also forests and trees that are included into other land categories. Although these forests and groves do not form a consistent area of the forest ecosystem, but in eco-physiological terms these areas are included into production of oxygen and in the emission capacity at the more or less same level as the forest.

Based on the above-mentioned facts, forested landscape in Serbia calculated specifically for 1990 year, according to the strictest criteria indeed is 2,822,831.9 ha, representing 36.39% of the territory.

$$311+312+313+0,5 \times 324+0,33 \times 243=26.668+0.99+1.46+3.07+4.19= \mathbf{36,39\%}$$

According to data for 2000 year, the forested landscape in Serbia calculated by the following formula occupies 36,5%.

$$311+312+313+0,5 \times 324+0,33 \times 243=26,665+1,054+1,497+3,054+4,225= \mathbf{36,5\%}$$

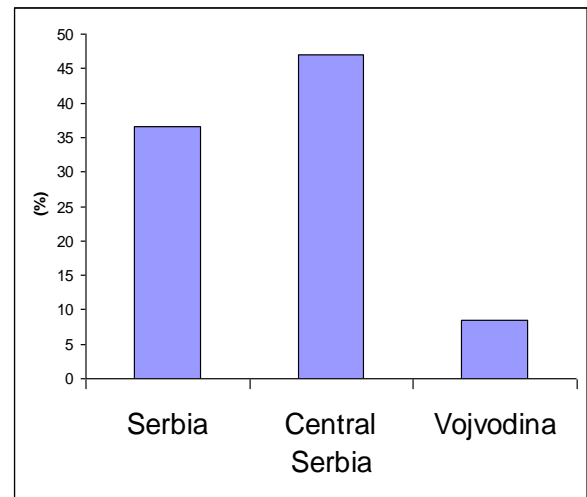


Figure 5. Forested landscape in Serbia 2000th.

If we apply the formula of calculating forestland landscape in Germany, forest in Serbia amounted to:
 $311+312+313+324+0,33 \times 243=26,665+1,054+1,497+6,117+4,225= \mathbf{39,5\%}$

This would not be entirely correct because it is taken into account the whole class 324 and the one third of the class 243. Based on the available data of Corine Land Cover classification in different countries, 50-70% of the transitional woodland-scrub vegetation zone in non-Mediterranean countries can be counted in the forest. Germany has implemented this model because it has a very small area of class 324 (0.5%), so the potential error is not significant. Having on mind that Serbia has more than 6% of the transitional woodland-scrub vegetation it would not be good to count entire area as forested landscape.

According to this formula forested landscape in central Serbia is slightly over 47% and in Vojvodina, about 8.5%. So, this indicator gave us very useful information which can be use for the environmental analysis of emission capacity, and habitat analysis from the aspect of biodiversity.

FOREST LAND

One of the most common ways of calculating the area of forest land is the sum of the class of forests and transitional woodland-scrub vegetation (European Environment Agency, 2006).

$$311 + 312 + 313 + 324 = 26.664 + 1.05 + 1.5 + 6,117 = \mathbf{35,33 \%}.$$

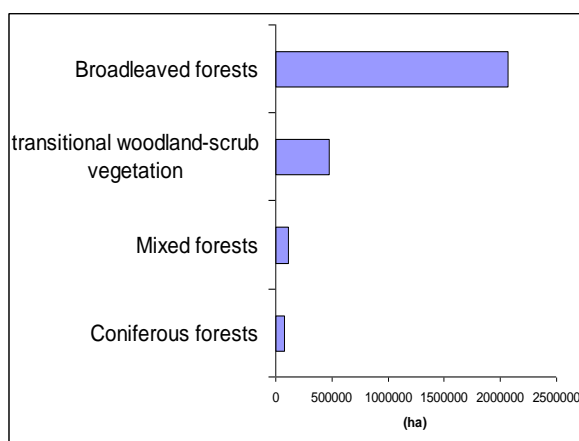


Figure 6. Categories of forest land in Serbia 2000th.

Area of forest land in Central Serbia in 2000 year occupied 45.17% and at Vojvodina 9.19%.

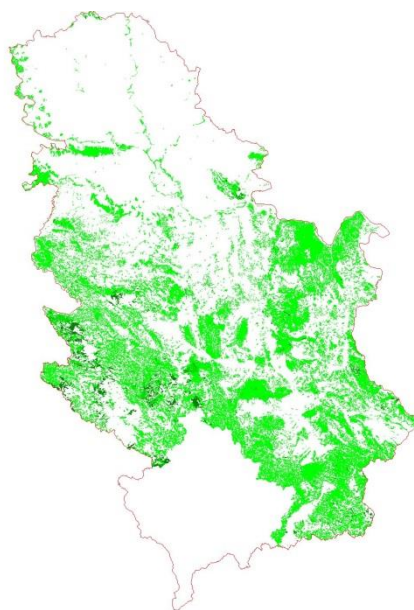


Figure 7. Classes 311 + 312 + 313 + 324.

Indicator Forest land is very useful from the aspect of planning in forestry, as well as for the possible changes and increment the capacity of the plant cover emission, and as such can be used in future eventually “gases trading”.

FORESTS AND SEMI NATURAL AREA

Forest and semi natural areas is another criterion used to calculate the forestland, and represent the sum within class 3XX. It includes classes of forest and transitional woodland-scrub vegetation, then natural grasslands (class 321), sandy beaches and dunes (class 331), bare rock (332), sparsely vegetated area (class 333) and burnt area (class 334).

The size of this indicator or the sum of within-class 3xx in Serbia in 2000th is 38.43%.

$$311+312+313+321+324+331+332+333+334=26,664+1,05+1,5+2,8+6,12+0,03+0,002+0,26+0,00= \mathbf{38,43\%}$$

The sum of the classes that don't represent forest ecosystems and are outside of the class of forest and transitional woodland-scrub vegetation in 2000th is 3,1%.

$$321+331+332+333+334=2,81+0,03+0,002+0,26+0,008 = \mathbf{3,102 \%}$$

During the period 1990-2000, these areas, without classes of forest and classes of transitional woodland-scrub vegetation, reduces to 0.0296%.

So, apart from natural pastures, other categories of land are insignificantly small to affect the final sum. On the other hand, natural pastures occur primarily on the high mountain natural areas, which are hardly or not at all subject to the process of natural succession, so this criterion for forming Serbian indicators was less adequate.

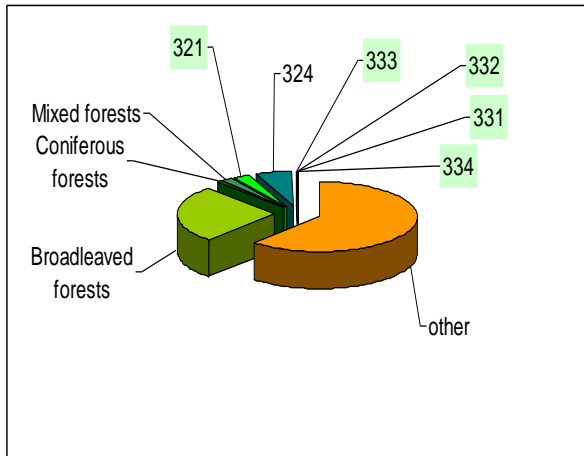


Figure 8. Forests and semi-natural areas 2000th.

It should be borne in mind that this indicator can be used in monitoring the habitats dynamics, from the aspect of biodiversity, especially in high mountain areas.

2.2. Comparative analysis of forestland indicators

Analysis of the forestland indicators trends, in time period 1990-2000 year, showed the increment in their value. Also, clear trend of increasing a meadow vegetation part is observed, points out a clear process of natural succession from meadow to bushy and forest vegetation. The succession of meadow vegetation to a bushy vegetation is a slower process, compared to the succession bushy to forest vegetation.

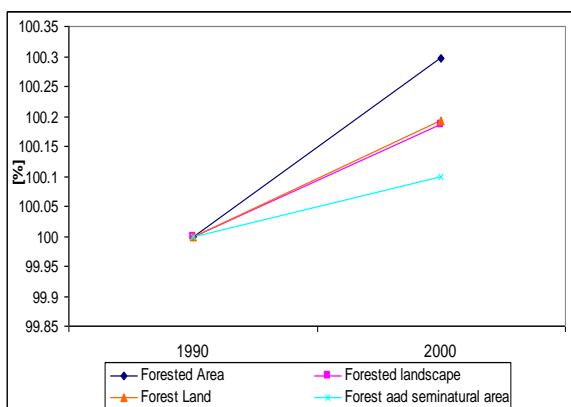


Figure 9. Rate of change of Forestland indicators during time period 1990-2000.

At the same time, trends of these indicators show significant variation in values. Thus, the indicator Forest area and Forest and Semi-natural areas have recorded deviations that can be explained by the different rates of natural vegetation succession. Also, the indicator Forest area has been calculated on the basis of data for the compact forest stands more than 25 ha, where the share of meadow vegetation is very small and as such is not sufficiently relevant.

The dynamics of indicators changes of Forested landscape and Forestry land show the similar manner and speed of succession. This is because those indicators have approximately the same values of meadow vegetation. Similar, and also significant share of meadow vegetation indicate that those areas have similar speed and manner of succession. It is because of the similar, but significant share of meadow vegetation, that was include in the calculation. The approximate coincidence of these data points to a similar speed and manner of succession of these areas.

Indicator Forest area is the strictest criterion of counting forestland because it includes only compact forest area larger than 25 ha. In the period 1990-2000 there has been an increase in the surface covered by forests of 0.296%, which is increment of surface area of 6690 ha. Increment in areas can have significant benefits, both for planning in forestry and for the analysis of habitat biodiversity.

In this period, in indicator of Forested landscape it has been noted a trend of increasing of 0.186%, which represents a surface change of 5 256.1 ha. So, the total area in 2000 year amounts to 2,828,088 ha. This indicator also includes a fragmented forest area between or around the meadow area and shrubs, which increase the diversity of habitats and therefore affect the increase of the total biological diversity of landscapes. It should be kept in the mind

that 26.27% of the mentioned area takes the meadow vegetation. According to the data recorded in the period 1990-2000, there was increase in the area under meadow vegetation of 619.6 ha, which is particularly important for the aspect of biodiversity. The data obtained by this indicator can be used in environmental analysis of emission capacity, as well as the for the habitat of analysis, particularly in terms of biodiversity.

During the period 1990-2000, there has been an increase in value of indicator Forest land for 0.193%, representing an increase in surface area of 5 271 ha. According to data for Serbia in 2000th, the area under forest land amounts to 2,735,565 ha. By increasing value of this indicator and regarding the class of transitional woodland-scrub vegetation, it can be concluded that there was also an increment in variety of the aforementioned areas.

Based on data obtained Corine Land Cover methodology, it was noticed that 23, 46% of the area has been occupied by the meadow vegetation. Observing a trend of increasing surface area of the meadow vegetation in relation to the 1990th year for 770.4 ha, points out increment of landscape. This increment can be seen as a process of natural succession of meadow vegetation to shrubby and forest vegetation.

Information obtained by this indicator is very useful for forestry planning, as well as for the possible changes in emission and increment of the plant cover capacity, and as like that can be used in future eventually “gases trading”.

In this period we note the increasing size of the indicators of Forests and Semi-natural area by 0.1%. Basis on the data, in year 2000 the size of this area is 2,981,471 ha. This indicator, next to the woods and transitional woodland-scrub vegetation, has the highest share of the meadow vegetation (natural pastures). During the period 1990-

2000, there have been noticed a reduction within other classes, whose are out of class of forest and transitional woodland-scrub vegetation, for 0.0296%.

According to data obtained by Corine land cover methodology, it has been reported that meadow vegetation occupies 28. 03%, or 835 575.8 ha surface. Looking to the 1990th year, noted the trend of increasing above the surface of the meadow vegetation for 15 052, 8 ha. As the largest share in this class of meadow vegetation has class of natural pastures. Also, it should be noted that according to data from 2000 year, this category covers an area of 217,690 ha. Comparing to the data from the 1990th, it is observed reduction in the aforementioned areas of natural grassland to 1.25%.

3. CONCLUSION

Based on the presented data and analysis can be concluded that:

- An indicator of Forest area provides rigorous information on large forest complexes, which indicate the possibilities of planning the sustainable use and conservation.
- During the period 1990-2000 the observed increase of Forest area indicator of 0.296% increasing the value of this indicator. This can be very important, both for planning in forestry, as well as for the analysis of habitat, particularly from the aspect of biodiversity.
- In the period 1990-2000, indicator Forested Landscape shows an increasing trend in its size, for 0.186%. How this indicator gives us data based on eco-physiological parameters, it can be used primarily in the calculation of emission capacity and in a possible “gases trade”. This increment of value can have very positive influence on the mentioned activities.

- In the period 1990-2000, was also an increment in area under meadow vegetation of 619.6 ha. This can have encouraging results in terms of biodiversity habitats.
- During the period from 1990 to 2000, it's been noticed an increase in indicator of Forestry land for 0.193%. This data can be used primarily in the possible expansion of area under forest and can be used also in the planning of sustainable use and a possible "gases trade".
- Based on data obtained Corine Land Cover methodology, we noticed that 23, 46% of the surface is covered by meadow vegetation. In relation to the 1990th noticeable trend of increasing the surface area, for the 770.4 ha, results in the increment of landscape diversity.
- In the reporting period, also is observed an increase in the size of the surface of the indicator Forests and semi-natural areas by 0.1%. Information given by this indicator can use us for analysis of the possible expansion (in terms of sustainable use and development), but also for the analysis of stability of certain habitats, especially in high mountain areas.
- According to data obtained by Corine land cover methodology, reported that meadow vegetation occupies 28.03%. Looking to the 1990th year, it has been noticed also trend of increasing above the surface of the meadow vegetation for 15 052, 8 ha.

4. REFERENCES

- [1] Bossard, M., Feranec, J., Otahel, J., (2000), CORINE land cover technical guide- Addendum 2000, European Environment Agency, Copenhagen.
- [2] European Environment Agency, (2006), EEA Report, Land account for Europe 1990-2000, Copenhagen, No 11/2006.
- [3] Keil, M., Kiefl, R., Strunz G., (2005), CORINE Land Cover 2000- Germany, German Aerospace Center, Wessling, Germany.
- [4] Ministry of agriculture, forestry and water management of Republic of Serbia, Department of forests, National inventory of forests, (in the press).
- [5] Ministerial Conference on the Protection of Forests in Europe (2007), State of Europe's forests 2007, Warsaw, Poland.

THE QUALITY OF EDUCATION: AN ECONOMIC VIEW

Assoc.Prof. Evgenia Penkova, PhD

Department of Public Administration, University of National and World Economy - Sofia, 1700,
Bulgaria, evgenia.penkova@unwe.bg

Assoc. Prof. Alexander Valkov, PhD

Department of Public Administration, University of National and World Economy - Sofia, 1700,
Bulgaria, alexander.valkov@unwe.bg

Abstract: The article examines the problem of the quality of education in its relationship with major economic and social effects at the macro level. It develops the thesis that the quality of education should be considered in the context of its sourcing/funding as a: process, result and impact of this result. This requires structuring a common Quality Indicators Educational Framework. On this basis on one hand a country can make complex comparative evaluation of the quality and on the other to trace the relationships and dependencies between the individual indicators. Analyzing the intensity and strength of these relationships is the tool for setting priorities in public education policies.

Key words: *quality indicators, quality indicators educational framework, correlations, effectiveness and efficiency of education*

We are used often to prescribe all personal failings and problems to public education. Is that true and can it bear such a heavy load? The answer is to a great extent is in the quality of education itself.

How do we judge on the quality of education?

In everyday life things are solved relatively simply. Media quote selectively results from PISA tests and are "pleased" report that: "The quality of our education is catastrophic: our children are the most illiterate in Europe"! Useful or harmful is this finding is difficult to assess. First, because this does not lead to a professional debate and to the adoption of specific

programs to address the problem. And secondly (which is more important), because there is no single measure that uniquely to assess quality.

To produce a concept of quality of education is not an easy task. Therefore very often quantitative indicators are sought to "suggest" quality. And this quantification is not accidental. It corresponds with the philosophy and foundations of different economic and social theories of education. All they conclusively confirm the economic and social significance of the phenomenon of education. And all methods (especially in economic research) are aimed at quantitative evaluation of learning outcomes and effects.

The term "quality education" though widely used requires clarification in a scientific context. Without pretensions for being exhaustive in terminology in working order we will try to relate our understanding for *quality of education to the quality of education product and service*.

The *product of education* has primarily intangible character and is connected with the knowledge and skills of the particular person that are inseparable from it and form its social and economic status.

Educational product is formed as a result of the rendered educational (and training) services. The *education service* is related

to the process of product creation and mainly to the resources needed and the use of certain technologies to achieve the expected objectives.

Figure 1 shows the sequence of formation of the product of education, the factors determining it, rendered external

influences - its effects. It is seen that the product is not only the aim of the education system or of the individual who is a carrier of the product. This brings the particular importance of some general and a number of specific questions that we will try to answer.

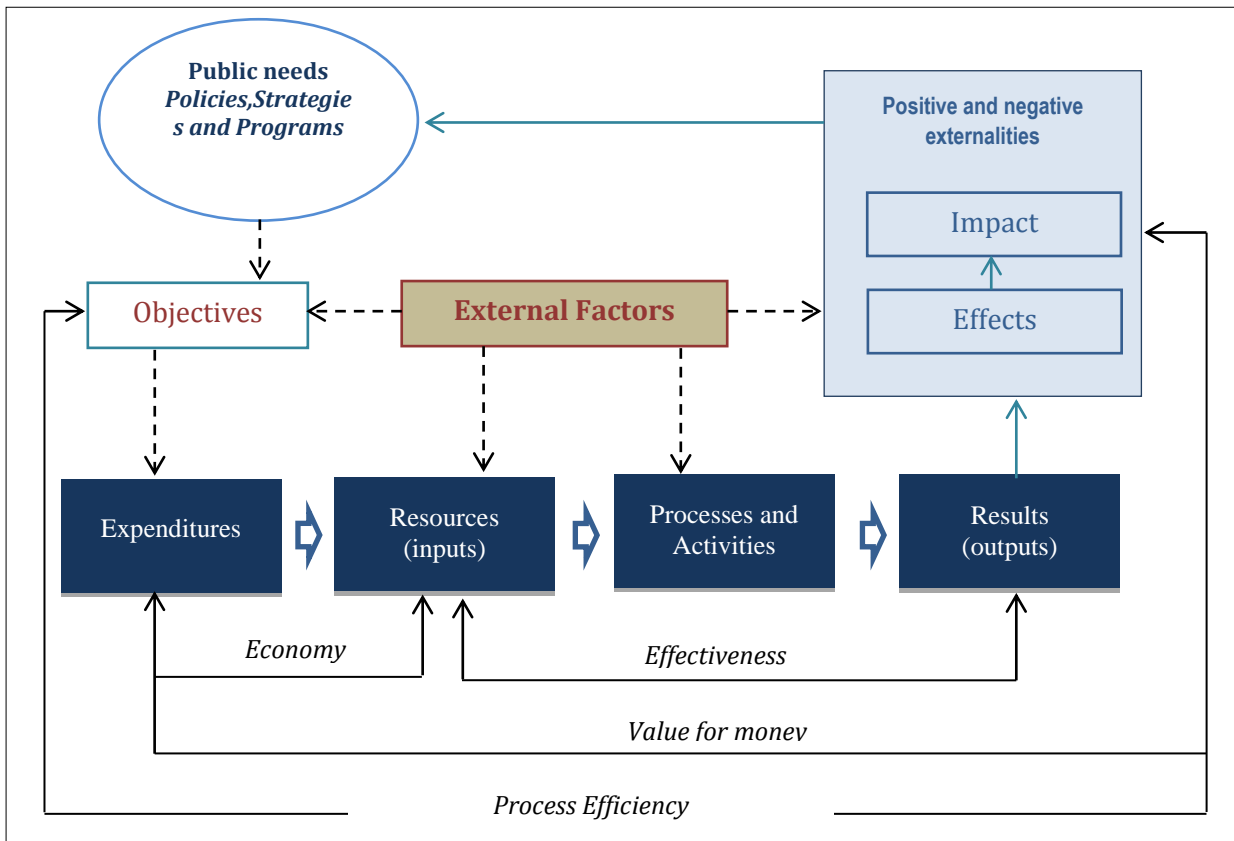


Figure 1: Factor conditioning, effects and impacts of the product education

How to measure the quality of the educational product?

The formation of the education product is a systematic process which involves:

- *Conformity* with the needs of individuals on the one hand and the realization of social goals on the other. Since differences in social development are significant in individual countries policies will be

focused on different goals. This appears to bracket the problem of the varying quality of the product;

- *Resource provision*, with a view of the limited resources in most economies they should be acquired at the lowest price not ignoring the requirements for their quality (economy). Data shows that the average EC public expenditure for education as a part of the GDP is

5,4% and by country the difference is up to 5p.p.;

- *Different duration of education* (average duration of the education and training in the world is 7.5 years but it varies in a very large range - from 12.6 years (Norway) to 1.4 years (Niger)¹. It is expected that these differences generate product of different quality;
- Use of various *educational technologies* - function on one side of the achieved technical and technological progress in a country and on the other of its educational policy and etc.;
- Taking into account the fact that each successive level of education builds on the previous one, the quality of the product of school education largely determines the quality of higher education (*continuity in education*);
- *Economic and social impacts* (effects) at different levels. The broad social resonance of education "requires" putting the quality of education as a priority of public policies.

The foregoing gives grounds to conclude that the problem of the quality of education is not and should not be closed only within the educational system. Educational research abounds with proposals for quality evaluation by internal assessment, introduction of subject specific criteria and etc., which is important but gives "piecemeal" information and gives education and training some end in itself.

Education as part of a public body cannot be analysed in isolation. The use of its own criteria system for assessing risks not meeting public expectations. It should be noted that such risks "are taken" not only in pedagogical approaches but also in some economic studies focusing on "internal efficiency" indicators for education. This rather indicates the efficiency of the process. If a product of a public sector (education) has no consumption it cannot be evaluated positively from the public point of view. In this sense the *main evaluation criteria should be public benefit*. Fig. 1 shows that this is the achievement of the objectives and respectively the satisfaction of public needs. Effectiveness of education (as a process of creating an educational product) evaluated thus is closely related to the effectiveness of education spending or the value for money principle.

In light of the above an evaluation system should enable to track the progress of the system against objectives set to and against established standards in different cross sections. It is interesting to note that in most cases the established systems of quality assurance are focusing on the links within the system and the output indicators - educational attainments (measured by themselves or in a comparative perspective). Links "in" are looked for at the entrance - as resourcing of education.

Indicators framework for assessing the quality of education

Considerations given make it possible to systematize target, resources, procedural and resultant components of quality of education. They can be included in a common indicator framework logic: resources - activities - results – effects.

¹Average duration of schooling is 7.5 years (UN data)
see *The 2014 Human Development Report - Sustaining Human Progress*.

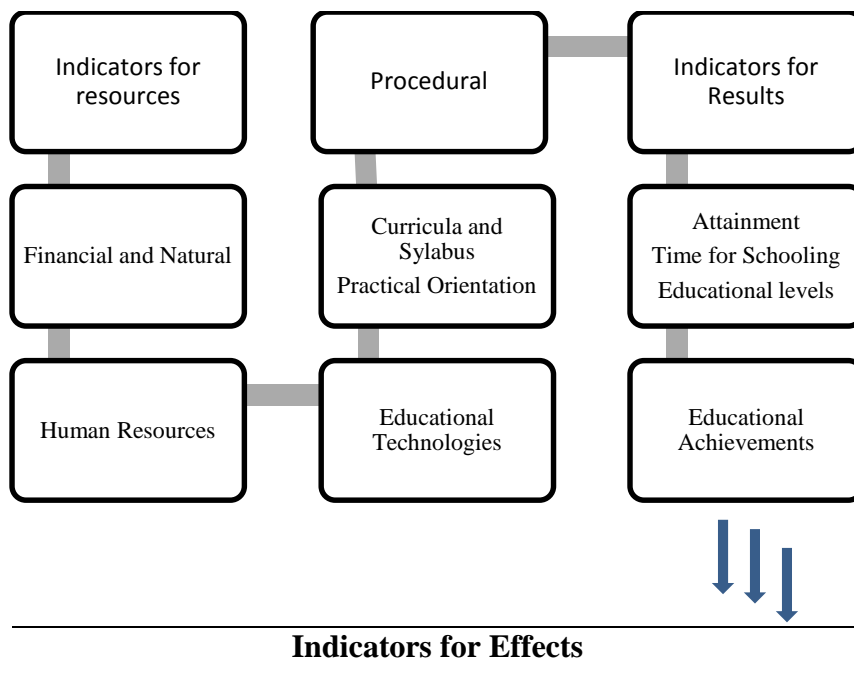


Figure 2: Indicators framework for quality in education

We can group the indicators to ensure the quality of education in order they to be monitored and analysed like this:

A. Indicators of resource availability:

- *Financial indicators* -education spending as a total amount- state and municipal; share of expenditure on education (including in degrees) of GDP and the budget; amount of private payments and a share of household expenditure on education; average allowance per pupil / student; level of wages of employees in education, etc.;

- *Natural indicators* -buildings; structure of the school network; school infrastructure; technical support (including per student); library fund; laboratories; workshops, etc.;

- *Human resources*- staff, including teachers (gender and age); educational and qualification level of teachers; students – teacher ratio; training and qualification courses, etc.

B. Procedural quality components (quality indicators of educational process):

- *Content* - curricula; convertibility of content and educational degrees; quality of teaching; connection of educational content and practice;

- *Technologies* - used educational technologies; innovations introduced; depreciation of knowledge, etc.;

- *Social* -participation of pupils / students in school and community life; partnership with employers' organizations and NGOs; social environment and climate, etc.

C. Indicators for Results:

- With emphasis on *the quantitative assessment of the product*(measurable indicators): coverage of learners by age group (coefficient for enrollment); share of school dropouts (including early dropouts); graduated in degrees (including on time graduates) or in the relevant age group, for example, HE graduates aged 30-34 years; educational structure of the population;

- Focusing on *essential characteristicsof education*- learning achievements in various

fields of science and education; level of satisfaction; etc.

D. Indicators for effects:

- *General* - realization of graduates; applicability of the knowledge gained; needs for additional training, etc.;
- *Economic effects* - growth of labor productivity; increase in individual income; GDP growth; impact on economic growth; return rate on the cost of education, etc.;
- *Social effects* - family environment; micro climate in the team; social mobility and social inclusion; employment, etc.

The system of indicators is "open"- the above indicators are summarized and examples only. Each group can be supplemented by a number of more general indicators or decomposed. However for different levels and types of education groups of indicators can be identified to fit the specifics of their product.

A similar approach but with a focus on results (achievements) is adopted in the European report on the quality of school education. Four groups of *indicators of achievement* are analysed² (in different areas - math, reading, science, information and communication technologies, foreign languages, learning skills, civic education); for *progress of students* (dropouts, high school graduates, universities enrollment); for *monitoring of school education* (evaluation and management of school education); for *resources and structures* (education and training of teachers, coverage in preschool education, number of students per computer, educational expenditure per student). As is apparent that from the scope of the analysis is the assessment of the effects is absent- a defect which was already discussed.

The European report on the quality of schooling raises a very important question-

² See PISA 2012

Result <http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm>

the question of *comparability of data*. This obviously means the construction of such a system of indicators that there is identity of the individual indicators.

Comparability and consistency of the different indicators

The need for comparability of data which definitely share we can uptake of techniques for comparability and consistency of educational attainments and deduction of the factor conditionalities. This would be a good basis to assist governments in the development of effective educational policy.

We will try to illustrate this vision based on a sample analysis. (Full evaluation of the quality within this material is not possible to do). We will limit the scope of the study to:

First, to analyze the relationship between basic resources (public expenditure) and output indicators (international assessments);

Second, to analyze the relationship public spending and the social and economic effects;

This approach refers to the economic focus of the analysis which we declared in the article title. In the context of the outlined dependencies and evaluation criteria (see Figure 1), the first link is analyzed to evaluate the efficiency of the system, and the second - to assess the effectiveness of spending on education. For the purposes of the evaluation we will use the technique of correlation analysis³. The analysis is based on a sample of nine European countries. The formation of the sample is based on criteria: level of public spending. The sample covers three groups of countries: with a level of spending significantly above the EU average; with a level of spending about average and well below the average for the EU-28 values (5.4% of GDP) (see. Table 1).

³ The correlation analysis is done using SPSS and Microsoft Excel.

1. As already mentioned in public expenditure is a major resource factor for the development of the system. The data in Table 1 indicate that there are significant differences between countries whose public expenditure on education are the highest in the EU (Denmark - 8.8% of GDP) and those with the lowest (Romania - 3.53%). With the correlations we seek answers to the question if these differences within more than 5 percentage points generate significant differences in educational outcomes and social effects.

2. Data from recent studies OECD PISA results test scores (2012) show relative convergent performance in selected

countries. As the figures in reading and math skills show children in Switzerland, Germany, Denmark stand out (above the OECD average). How far it has a connection with public financing of secondary education will show the correlation analysis.

3. The index level of employment of highly qualified active population (ISCED 5-8) aims to make connection regarding public spending - social effect. The data show variations in individual countries up to and over 10 percentage points and compared with the EU average (81.7%) between +7.1 pp to - 6 pp. Can we accept that public spending on higher education have affected will be determined by correlation analysis.

Table 1: Public expenditure by level, basic indicators for educational attainments and effects

| Countries | Public expenditure as % from GDP | | | Educational Attainment | | Effect |
|-----------------|----------------------------------|---------------------------|------------------------|------------------------|-----------------|-------------------------|
| | Total costs | Incl. Secondary Education | incl. Higher Education | PISA Read | PISA Math | Empl. Rate (5-8 ICED)** |
| Denmark | 8,80 | 6,39 | 2,41 | 497 | 500 | 86,1 |
| Sweden | 6,98 | 4,95 | 2,03 | 483 | 478 | 87,3 |
| Great Britain | 6,20 | 5,18 | 1,02 | 409 | 494 | 83,9 |
| Austria | 5,84 | 4,21 | 1,63 | 490 | 506 | 85,9 |
| EU -27 | 5,40 | | 1,26 | OECD 496 | OECD 494 | 81,7 |
| Switzerland | 5,22 | 3,90 | 1,32 | 509 | 531 | 88,8 |
| Germany | 5,00 | 3,62 | 1,38 | 508 | 514 | 87,6 |
| Italy | 4,50 | 3,66 | 0,84 | 490 | 485 | 75,7 |
| Bulgaria | 4,10 | 3,49 | 0,61 | 436 | 439 | 80,1 |
| Romania | 3,53 | 2,53 | 1,00 | 438 | 445 | 81,7 |

Notice:*Indicators in the table are summarized by the author in recent published data for 2015, respectively public expenditure Eurostat 2011 and PISA results (2012) of the OECD;

** The employment rate for ISCED 5-8 is the 2012 average (81.7) for the EU-28

Source: Eurostat, 2015; OECD, 2015

What conclusions can be made based on the correlations displayed:

(1) In Fig. 3 is displayed the correlation between the cost of secondary education and average educational attainment as measured by both PISA test. It is clear that this approach gives a partial picture as far as it is based on one indicator for quality of secondary education. Under these limited conditions the analysis shows that there is

a *direct and moderate* (0.262) connection between *public expenditure on secondary education as% of GDP and PiSSA achievements (2012) - reading and mathematics*. The intensity of the connection is displayed on the basis of data for Denmark, Sweden, UK, Austria, EU-27, Switzerland, Germany, Italy, Bulgaria and Romania.

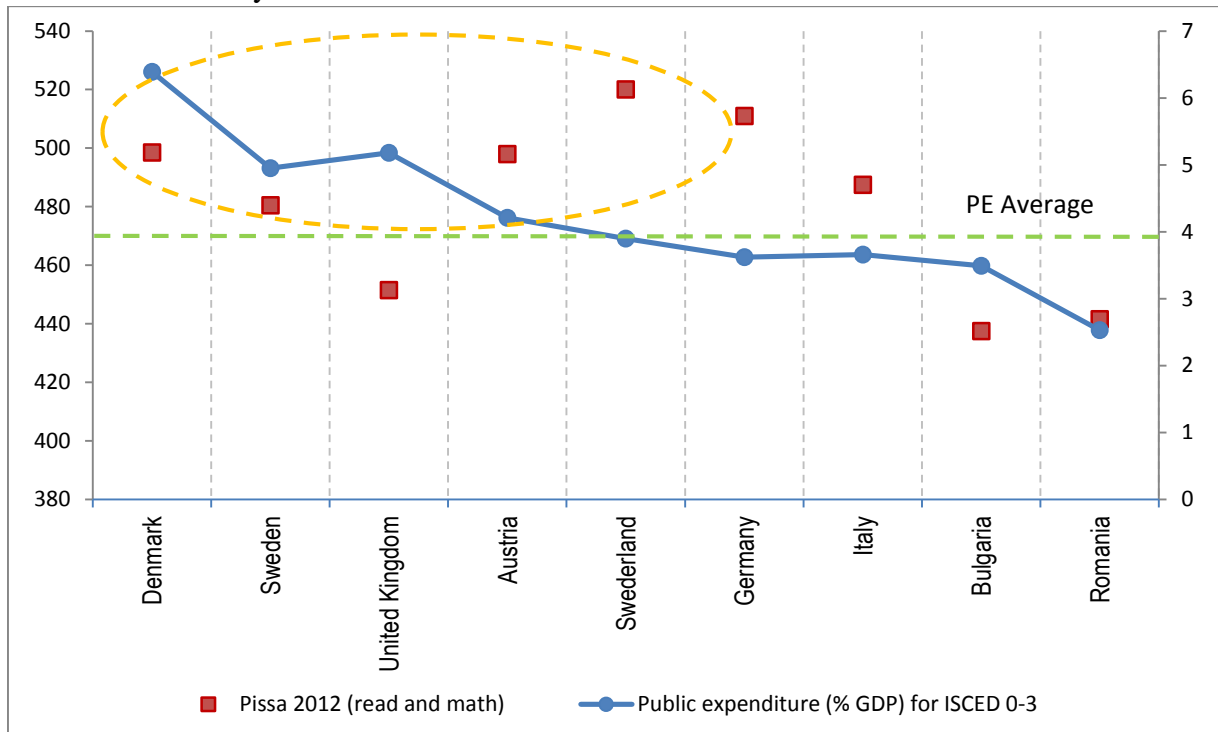


Figure 3: Public spending and educational achievements in secondary education

Source: Eurostat, 2015; OECD, 2015

(2) Figure 4 displays correlation connection between public spending and one of the social effects - employment. Insofar as employment of the active population with higher education (ISCED 5-8) is used an indicator it is compared to public expenditure on higher education. As it can be seen here we definitely have unidirectional trends. So the result of the

analysis establishes *direct and significant* (0.652) *relationship between public spending on higher education as% of GDP and employment for the respective group* (derived for the sample countries - Denmark, Sweden, UK, Austria, EU-27, Switzerland Germany, Italy, Bulgaria and Romania).

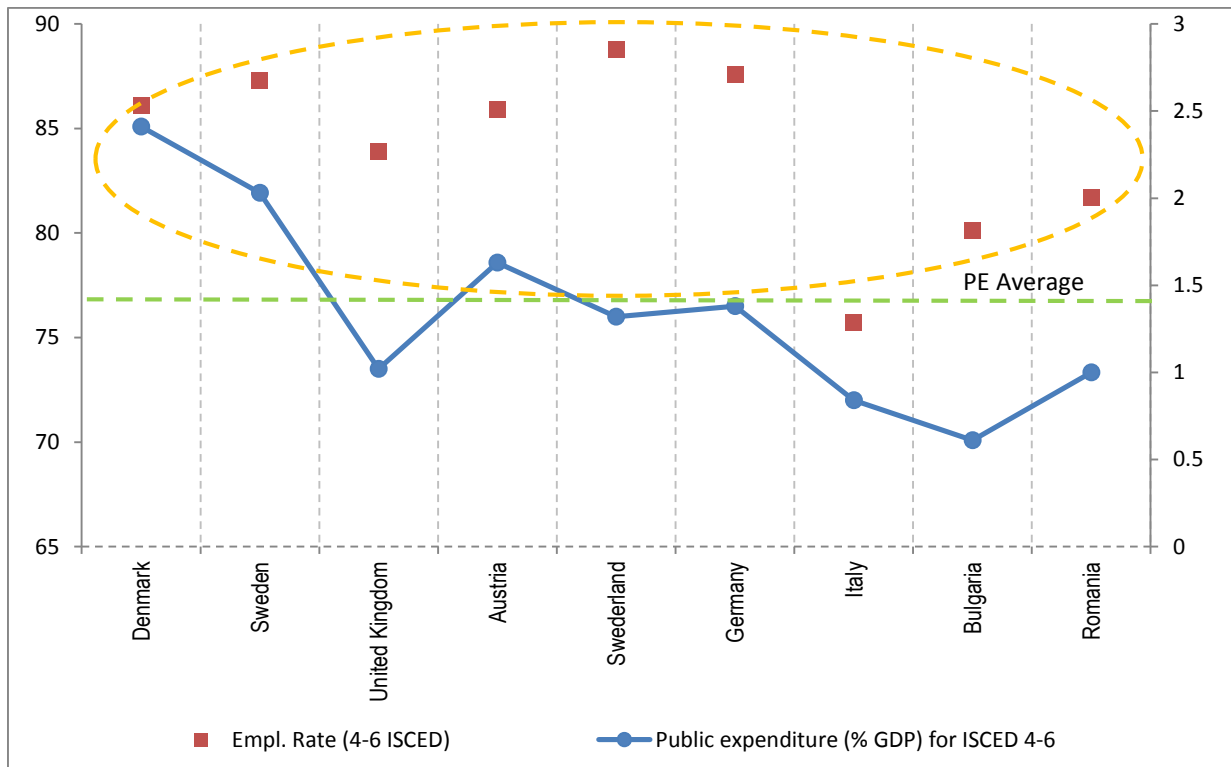


Figure 4: Public expenditure on higher education and employment

Source: Eurostat, 2015; OECD, 2015

The use of these tools and the inclusion of a wider set of indicators for resources, results and effects could be a useful tool for the identification of concrete measures in the direction of reforms aimed at improving the quality of education

References

1. Делчева, Е., и др. (2014). *Инструменти за повишаване на качеството на публичните услуги*. ИК – УНСС, София
2. Eurydice Report.(2015). *Assuring Quality in Education: Policies and Approaches to School*

Evaluation in Europe.Luxembourg: Publications Office of the European Union

3. OECD. (2014). *PISA 2012 Results: What Students Know and Can Do Student Performance in Mathematics, Reading and Science.* , PISA, OECD Publishing
4. O’Loughlin, E.,L. Wegimont. (2008). *Quality in Global Education. An Overview of Evaluation Policy and Practice*. Global Education Network Europe
5. UNDP. (2014). *The 2014 Human Development Report - Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. United Nations Development Programme

THE ROLE AND IMPORTANCE OF INTERNET MARKETING IN MODERN HOTEL INDUSTRY

Mr.sc. Ivica Batinić, prof. Vocational school, Vukovar, Croatia
E-mail: ivica.batinic@email.t-com.hr

Abstract: Dynamic and rapid development of Internet technology and marketing opportunities provided by modern digital technology, enabled the radical change in traditional marketing activities and opened the space for the development of Internet marketing. Internet marketing has become an inevitable trend in the business, and its benefits are recognized by many businesses, regardless of their economic activity, with the aim of achieving better business results. Representatives of the hospitality and tourism demand (potential users of services and products) are more frequently and increasingly getting their information on offers through the Internet, and the marketing presentation of the overall offer via the Internet is becoming an increasingly important success factor of each hotel as a business system. This paper analyzes the basic determinants of Internet marketing and the role and importance of Internet marketing in modern hotel business.

Key words: Internet marketing, hospitality, websites, email, social networks, users

1. INTRODUCTION

After the commercialization of the Internet at the end of the last century, it took very little time for various economic operators to recognize its marketing potential. By examining numerous scientific and professional papers and operations of various economic operators around the world, it is possible to conclude that the Internet has gradually developed from a communication medium into a channel of sales and distribution, and finally into a platform for managing relationships with consumers and virtual communities. Interactivity, as the main feature of the Internet, has enabled a new dimension of connection between all the participants in the market. In addition, the digital nature of the Internet made it possible to keep track of all the interactions in the electronic environment, which gives

a whole new dimension to the key areas of marketing such as market research, analyzing consumer behavior, management of a marketing network and measurement of the effectiveness of marketing activities. Internet ceased to be only a part of the tactical marketing management and there was a necessity for holistic management of activities in Internet marketing at the level of all elements of the marketing network. A holistic approach to Internet marketing and its inclusion in the marketing strategy contributes significantly to the success of marketing activities in the electronic environment.

2. DEFINING INTERNET MARKETING

By analyzing the extensive literature on the application of marketing in the electronic environment it is evident that the terms Internet, e-mail and e-marketing are generally used interchangeably. 'Internet marketing and online advertising, also called i-marketing, web marketing, online marketing, or e-marketing, is the advertising of products and services over the Internet. '(Ruzic, D. 2003). 'Electronic Marketing represents the realization of marketing activities of a company with the intensive use of information and telecommunication (Internet) technology.' (Panian, Z. 2000). 'Internet marketing is the use of the Internet and other digital technologies with traditional methods in order to achieve marketing goals.' (Chaffey, D., Ellis-Chadwick, F., Mayer, R., Johnston, K. 2009). 'Electronic marketing is the application of information technology in the process of creating, communicating and delivering value to consumers, and for

managing relationships with consumers in order to create benefits for the company and other parties involved.' (Strauss, J., Frost, R. 2009). 'E-marketing is the application of a wide range of information technology for: translating marketing strategies to create more value for the customer (more efficient segmentation, targeting, differentiation and positioning strategy), more efficient planning and implementation of the concept, distribution, promotion and pricing of goods, services and ideas and the creation of exchange which will satisfy individual consumers, as well as the objectives of organized consumers.' (Strauss, J. 2003). Considering the abovementioned definitions of prominent theorists of Internet (electronic) marketing, it is possible to conclude that Internet (electronic) marketing is the application of information and communication technology (especially the Internet) in the process of creating, delivering and communicating the value to customers and managing the relationship with the customers with the aim of achieving the set marketing goals.

3. FUNDAMENTAL CHARACTERISTICS OF INTERNET MARKETING

Recognizing the fundamental determinants of Internet technology and definitions of Internet marketing by distinguished scholars, it can be concluded that the basic features of Internet marketing are as follows: consumer databases, interactivity, the ability of direct response to all forms of marketing activities and measurement of the effects of marketing activities.

1. Consumer databases. While traditional marketing activities are based on the information that is collected and processed by market research, the digital nature of the Internet technology provides a comprehensive and detailed insight into the characteristics of consumers and their behavior in the electronic environment.

2. Interactivity, as the possibility of two-way communication, has changed the way of implementation of almost all traditional marketing activities and enabled the application of new methods and techniques of marketing.

3. Internet technology allows a direct response to all forms of marketing activities (for example, clicking on the various advertisements via the Internet), which in most cases is not possible with traditional marketing activities.

4. Measuring the effects of various marketing activities. 'Measurable effects have always been the main priority of marketing professionals, because they allow better decision making in marketing.' (Lilien, G. L., Rangaswamy, A., De Bruyn, A. 2007). Marketing activities via the Internet represent an adequate replacement for traditional marketing activities in which it is difficult to assess and measure efficiency.

4. INTERNET MARKETING AND MODERN HOTEL INDUSTRY

Modern hotel industry, in its business concept and philosophy necessarily brings into sharp focus the thinking of the end consumer, the customer of its products and services, therefore the guest. Accordingly, the marketing concept has a dominant role in all of the hotel's philosophy and business. 'The essence of marketing in the hotel industry is in the definition that marketing is analyzing, organizing, planning and controlling potential sources of customers, from the standpoint of satisfying the needs and requirements of the chosen group of guests, and on this basis realizing a profit.' (Unkovic, S., Zecevic, B. 2011). 'The function of hotel marketing is to test the opportunities and conditions for placement of existing and future services, and sales arrangement, i.e. selection of services that are assessed to have a sale value on the tourist market.' (Galičić, V., Ivanović, S.,

Lupić, M. 2006). The rapid development of Internet technology and marketing opportunities provided by modern digital technology has enabled radical changes in traditional marketing activities and opened a new space for the development of specific types of marketing – the Internet marketing. Because of the ruthless competition in the demanding tourist market, in order to retain the existing users of products and services and attract new ones, any serious hotelier, regardless of the capacity, season and market position, must, when defining marketing concepts, develop specific marketing activities through the Internet. The most powerful and most effective Internet marketing activities, which can improve sales and attract new customers, include:

1. Internet marketing through the hotel website
2. Internet marketing via e-mail
3. Internet marketing through social networks

1. Internet marketing through websites. Every hotel website, as well as being the most effective online marketing tool, must also be:

- attractively thought out and designed. 'Marketing experts must come up with attractive websites, find a way to attract customers to visit the web site, keep them there for a while and make them frequently come back to their website.' (Kotler, P., Bowen, T. John., Makens, C. James 2010).

- reliable, informative and accurate. Each hotel website must contain: reliable information on the destination of the hotel, information about hotel products and services, the possibility of booking of hotel products and services without risk (booking system)... The most cost-effective method is direct booking, since there is no payment of commissions to intermediaries. Therefore, every hotel should take care of its own website as the main sales channel.

- regularly updated and maintained in accordance with the modern needs of consumers – guests – and new trends in the hotel industry. Daily updating of the website content with current events in the hotel, destination and hotel-tourist business, special deals and packages of services are just some of the ways that hotels can attract more potential customers to their own website

Hotel web site, as the main carrier of marketing activities on the Internet, can influence the creation of a solid trust between service users and hoteliers, business performance and build the brand on the demanding tourist market.

2. Internet marketing via e-mail. 'The use of email marketing creates the opportunity to offer any potential interested guest to arrive at the right time at the minimum cost, and the results of such activities must be measurable, which creates a basis for decisions on future marketing activities.' (Kotler, P., Koller, K.L. 2008). 'The use of email marketing is actually the most suitable for those who have a product or service they want to offer directly to a client, whether existing or future.' (Miller, M. 2011). Through direct contact with the existing and potential users of hotel products and services via email, hoteliers can achieve multiple benefits:

- attracting new users of hotel products and services

- retention of existing users of hotel products and services

- developing brand awareness and improving market position

- access to research data related to all other business and marketing objectives

- as opposed to marketing communications in other media, email marketing is far cheaper and more efficient. 'The owners of many companies do independent email

newsletter marketing from their offices and homes, in order to have complete control, maximize results and minimize the costs of email newsletter campaigns.' (Cox, B., Koelzer. 2004).

E - mail marketing is an important marketing tool of direct communication that enables potential users to familiarize themselves with the hotel offer and a variety of special benefits. The main advantage of e-mail marketing is in its personalization - the message is made for a specific user, and if that person finds the offer interesting, it often results in the purchase without having to compare it with other competitors.

3. Internet marketing through social networks. Social networks, as a relatively new phenomenon in the Internet sphere, are "free online services" that enable different forms of communication with the world with the possibility of self-presentation. The most famous social networks like Facebook, YouTube, Twitter or FourSquare have become an important marketing "tool" of various economic entities. Advantages of hotel marketing through social networks can be multiple:

- . relatively low cost of the campaign,
- quick feedback,
- increase of traffic to the hotel website,
- strengthening of the brand,
- simple and fast promotion of new hotel products or services.
- improving relations with customers

Internet marketing through social networks must represent the necessary marketing concept which must be aimed at encouraging potential customers to voluntary and free exchange of information about hotel products and services.

5. CONCLUSION

Internet marketing is the use of information and communication technology (primarily the Internet) in the process of creating, delivering and communicating value to consumers. The fundamental differences of Internet marketing compared to traditional marketing are its ability to collect large amounts of data about consumers and their behavior in the electronic environment, interactivity that enhances the role of consumers and measurement of the effects of marketing activities. Because of the ruthless competition in the demanding tourist market, in order to retain the existing users of products and services and attract new ones, any serious hotelier, regardless of the capacity, season and market position, must, when defining marketing concepts, develop specific marketing activities through the Internet. The most powerful and most effective Internet marketing activities, which can improve sales and attract new customers, include: Internet marketing through the hotel website, Internet marketing via e-mail and Internet marketing through social networks. Attractive and entertaining websites, direct communication via email and promotion of products and services through social networks, must be important components of an Internet marketing strategy (concept) that can significantly affect the retention of existing and attraction of new users of products and services and enable better positioning on the tourist market.

REFERENCES

- Ružić, D. (2003). E-marketing, Osijek, Ekonomski fakultet Osijek.
- Panian, Ž. (2000). Internet i malo poduzetništvo, Zagreb, Informator.
- Chaffey, D., Ellis-Chadwick, F., Mayer, R., Johnston, K. (2009). Internet Marketing: Strategy, Implementation and Practice. 4th Edition. Prentice Hall.

Strauss, J., Frost, R. (2009). E-Marketing. 5th Edition. Pearson Prentice Hall.

Strauss, Judy(2003). "E-Marketing, 3rd edition", ND-AMA – School of Marketing.

Lilien, G. L., Rangaswamy, A., De Bruyn, A. (2007). Principles of Marketing Engineering. Trafford Publishing.

Unković, S., Zečević, B. (2011). Ekonomika turizma, Beograd, Centar za izdavačku delatnost Ekonmskog fakulteta

Galičić, V., Ivanović, S., Lupić, M. (2006). Hotelska prodaja i recepcijsko poslovanje, Opatija, Fakultet za turistički i hotelski menadžment

Kotler, P., Bowen, T. John., Makens, C. James. (2010). Marketing u ugostiteljstvu, hotelijerstvu i turizmu, Zagreb, Mate

Miller, M. (2011). The Ultimate Web Marketing Guide, Pearson Education

Kotler, P., Koller, K.L. (2008). Upravljanje marketingom, Zagreb, Mate

Cox, B., Koelzer. (2004). Internet marketing za hotele, restorane i turizam, New Jersey, Pearson Education

ANALYSIS OF THE NEW LEGAL ACTS ON MOBBING PROTECTION OF THE EMPLOYEES IN THE REPUBLIC OF MACEDONIA

Jadranka Denkova, Ph.D, Faculty of law at the University “Goce Delcev- Stip, Macedonia,
e-mail: Jadranka.denkova@ugd.edu.mk

Sasko Kolevski, master student on Faculty of law at the University “Goce Delcev- Stip,
Macedonia, e-mail:saskokolevski@gmail.com

Abstract: Emotional abuse in the work place, psychological terror, social isolation, are terms well known to the Labor Union organizations. They all refer to harassment in the work place, which is actually mobbing. The word “mobbing” denotes a wide range of complex activities which represent harassment of the employees in their work places, in all social spheres. Therefore the consequences range from mild disturbances to disappointing repercussions to the employees. Those consequences mostly reflect badly on the family of the harassed employee, as well on the organization and the society in general.

For that reason, the subject of this article is to analyze the regulations of the Law on Labor Relations which refer to protection of employees from harassment in the work place and to analyze the new “Law on Harassment Protection in the work place” adopted recently, in order to increase the protection measures against harassment in the work place on a higher level. The efficiency of this law is to be comprehended through professional and scientific approach, where the research should emphasize the efficiency of the new legal acts. The purpose of this article is not only to analyze the abovementioned laws on harassment protection in the work place in the Republic of Macedonia, but also to present a critique of the eventual mistakes that might occur during implementation and to identify legal gaps as obstacles against mobbing evidence. The methodological approach of this article is directed towards implementation of the qualitative method-analyzing content founded on scientific and expert competence as well as on previously established real state of affairs by the adopted law regulations in order to present our own point of view.

The conclusion of this article refers to the fact that weaknesses in some of the legal acts on the Law on Labor Relations and the Law on Harassment Protection could be noticed. Those cracks might be misinterpreted by the people in charge, by the employees as well as during their enforcement in the Legal Procedure.

Key words: *mobbing, harassment in the work place, public and government administration, legal*

regulation, application in practice, conclusion and improvement recommendations.

INTRODUCTION

The transition period in the Republic of Macedonia distinguished many negative repercussions on the fields of economy, social life and safety. It reflected on the working conditions, the rights from work relations and the respect of the worker as a person. Those conditions strongly influenced implementation of the Legal Acts concerning protecting the employees from mobbing in the work place. Suddenly those conditions were not on the top of the list any longer. This kind of approach enabled the employers in the private sector and the superiors in the state institutions to behave rather loose. The situation expanded into all organizations including the government administration of the RM.

Mobbing denotes a very complex widespread and mounting occurrence which reflects terribly on the human’s psychical and psychological health, his social surroundings in the work place and in the society. Mobbing is also present in the state institutions of the RM. Sometimes mobbing results with murder or suicide, despite the fact that we are not able to present figures or percentage since there is no record or evidence.

That is why the idea of this article is to make a small but professional contribution on employees’ protection when mobbing in the work place is concerned.

Having on mind some of the previous researches such as the Mobbing Program of the Union of Independent Self-government Labor Unions of the RM, prepared in corporation with labor Medicine Institute, according to which more than 77% of the employees in the RM are mobbing victims and even 60% of those are women¹, it can be perceived that the mobbing phenomenon is present in the organizations in the RM. However there are no clear facts or evidence because of absence of Legal Procedures in order to prove mobbing. There are no clear indicators of actual Legal Procedures concerning mobbing, where the perpetrators have been sentenced. How many of the employees are able to identify mobbing in order to act accordingly is a totally different matter. Analyzing the regulations of the Law on Labor Relations and the Law on Harassment experts suggest that there is no clear way of identifying or recognizing mobbing by any of us. Regulations which should point out to training of employees how to recognize mobbing, regardless of their work position, are omitted in the law. Mobbing could experience even superiors at work and the colleagues in the office as well through different types of insults, humiliation and psychological and emotional abuse.

According to experts' opinion identifying repetitive mobbing, at least for six months period, represents a prerogative not clear enough. It could obstruct the courts in the hearing of evidence and decrease the obstacle for protecting the workers-mobbing victims. Paying attention to strategic mobbing, as another form of psychological harassment in the work place, is significant. The same is not included in the legal modification of the Law on Labor Relations.

¹ 2010y., Union of Independent Autonomous Syndicates of Macedonia and the Institute of Labor Medicine

ANALYSIS OF THE LAWS ON POSITIVE AND NEGATIVE SOLUTIONS CONCERNING PROTECTING EMPLOYEES FROM MOBBING

In case of a Lawsuit, the legislator provided the dispute costs to be covered by the employer in order to ensure the right to mobbing protection. Article 11 of the Law on Labor Relations² determines that in a case of a Legal Procedure, if someone acts against Article 9-a³, the dispute costs are to be covered by the individual (or group) against whom the legal Proceeding for psychological harassment in the work place was submitted. This is unless it is proved that the particular behavior occurred because of certain situations provided in Article 8 of the Law on Labor Relations⁴. In order to protect the individual who decided to bring action against someone for legal protection from mobbing, as well as during testimonial in legal proceeding, the Law on Labor Relations⁵ forbids the employee (mobbing victim) to be treated inappropriately, directly or indirectly, for example: getting worse working conditions, decreased salary, transfer to a different post, enabling promotions or vocational training.

The constitutional doctrine of equal approach to the work place for all citizens from the Law on Labor Relations⁶, is operational through regulating the employment procedure, where it is provided that the need for workers is ensured by public advertising in the press (announcing

² Burden of proof incase of dispute (article 11), Law on Labor Relations (OfficialGazetteofthe RM no. 54/13dated 09.04.2013y. - revised text)

³ Psychological harassment at work(article 9-a), Law on Labor Relations (OfficialGazetteofthe RM no. 54/13dated 09.04.2013y. - revised text)

⁴ Exceptions in prohibition of discrimination (article 8), Law on Labor Relations (Official Gazette of the RM no.54/13dated 09.04.2013y. - revised text)

⁵Burden of proofincase of dispute (article 11 paragraph 3), LawonLaborRelations (OfficialGazetteofthe RM no.54/13 dated 09.04.2013y. - revisedtext)

⁶Method of providing the need of employees(article 22), LawonLaborRelations (OfficialGazetteofthe RM no.54/13 dated 09.04.2013y. - revisedtext)

the employment mediation service). Employer's responsibility during vacancy announcement is to state the conditions required for the advertised vacancy.

If we analyze the regulations of the Law on Labor Relations concerning the concept of annoyance and discrimination, Chapter 1 from the Law on Labor Relations⁷, to certain level even mobbing itself, we will realize that regulations are missing in this law (Official Gazette of the RM, dated 09.04.2013). Those are the regulations which should provide complete protection of the employees.

Protection of workers' rights from labor relation is ensured by a Legal Decision in order to prevent dismissal of employees based on groundless reasons⁸ (Article 77 from the Law on the Labor Relations). Groundless reasons for terminating of employment contract are:

- The employee's membership in a labor union or taking part in union activities in accordance with the Law and collective contracts;
- Bringing charges against the employer, or participating in a legal procedure against him because of confirmation of previously agreed obligations of the labor relation, to arbitration, legal and administration bodies;
- Permission for leave due to illness or injuries, pregnancy, giving birth and parenthood, nursing a family member, using approved absence from work or summer vacation;
- Completing military service or military exercise and other cases of moratorium of employment contract.

The improve diversion of the law on Labor Relations⁹ permitted legal

completion of the legal sanctions against discrimination in the work place and raised the rights that flow from workers' union as part of the collection of Human Rights in the RM. Thus almost all types of harassment over workers have been completed.¹⁰

RM accelerated the process of improving workers' rights in the last few years. The fact that the legislative power adopted the Law on harassment in the work place, or Law on mobbing protection¹¹, Official Gazette of the RM dated 31.05.2013, at the request of Labor Unions in the RM, proves the abovementioned. Thus RM joined the countries that show regard about workers' rights and constantly improve legal regulations which generally helps in the struggle against such occurrence. The social dialogue is raised on a higher level a fact that stands out as a very positive result in general. The Harassment Law is adopted for the first time in the RM. It is to be implemented on employers, employees, employment applicants, individuals engaged by contracts. The situations of physical sexual harassment are set down in its regulations very clearly.

For the first time psychological harassment was defined as any other repeated negative behavior by a group or individual and represents a dignity, integrity, reputation and honor violation of the employee. It causes sense of fear or creates unpleasant\ feeling, obedience which might result in physical and mental state violation, incriminating the professional career of the employee, dismissal or resign .Defining precisely emotional abuse ideas covers all possible situations the employee might experience.

⁷ From article 6 to article 11, Law on Labor Relations (Official Gazette of the RM no.54/13 dated 09.04.2013y. – revised text)

⁸ Unfounded reasons for firing (article 77), Law on Labor Relations (Official Gazette of the RM no.54/13 dated 09.04.2013y. – revised text)

⁹ Law on Labor Relations (Official Gazette of the RM no.52 dated 23.04.2012y.)

¹⁰ Associations of workers and employers (article 184), Law on Labor Relations (Official Gazette of the RM no.54/13 dated 09.04.2013y. – revised text)

¹¹ Law on Protection from Harassment in the workplace (Official Gazette of the RM no.79 dated 31.05.2013y.)

In addition to the abovementioned the Law on Labor Relations¹² for the first time includes sexual harassment, defined as any other verbal or physical behaviors—sexual assault, which represents dignity violation of the employee or employment applicant. Sexual harassment causes feeling of fear and obedience, creates feeling of inconvenience. According to this law, harassment in the work place also includes provoking or misleading to a harassment behavior. The regulations of this law also indicate the time and place of harassment. It is very important for this legal act that the procedure for protection of rights is precisely established. The procedure anticipates suitable protection on many levels, possibilities for solving disputes by mutual consent as well as possibilities for legal actions against decision making during early phases of the procedure. The law provides possibilities for solving disputes by mutual consent, before starting the procedure for protection of rights. At the same time it is a condition to bring action in case of a negative result.

In case an individual considers to be exposed on harassment in the work place by another person, the harassment victim should address him in writing indicating that his behavior is unacceptable, unsuitable and undesirable. That person should be warned that if the annoyance doesn't stop at once, legal protection is to be asked for. The regulations of the law direct that the person considering himself a harassment victim by another employee, should submit a written request, addressed to the employer, for harassment in the work place protection before bringing charges with the competent court of law against the other employee. In case a person considers to be a victim of harassing behavior by the employer, either a legal entity or an individual, he could bring charges against

the employer after a warning in writing addressed to the harassment performer.¹³

The law provides penalties in order to ensure complete enforcement of the law, paying special attention to protection and promotion of rights, and implementation of adequate working environment.¹⁴

This Law on harassment protection in the work place, (Official Gazette of the RM dated 31.05.2013) is in the interest of the workers, the employers and the society in general. It provides strong promotion of the workers' rights and their protection as well as protection of democratic and universal principles and values. The law itself provides environment for efficient, effective and productive completion of assignments.

CONCLUSION

As a conclusion and recommendation from this research, the following statements could be underlined. The modifications in the law on Labor Relations concerning mobbing are incomplete. They do not reflect the workers' real needs for protection from psychological pressure in the work place. These modifications do not include any other additional questions apart from defining "mobbing" and stating that mobbing is legally prohibited. In order to complete mobbing protection, among other it is necessary to include regulations referring to the measures that should be taken by the authorities responsible for mobbing prevention. Certain regulations that clearly point out employees' protection should be added in the law on Labor Relations, as well as possibilities for argumentation in a legal procedure and legal protection (protecting the victim of mobbing in case there is a legal procedure.

¹² Harassment and sexual harassment (article 9), Law on Labor Relations (Official Gazette of the RM no.54/13 dated 09.04.2013y. - revisedtext)

¹³ Lawsuit (article 31), 32. Law on Protection from Harassment in the work place (Official Gazette of the RM no.79 dated 31.05.2013y.)

¹⁴ Chapter 7, Article 36, Law on Protection from Harassment in the work place (Official Gazette of the RM no.79 dated 31.05.2013y.)

The person causing mobbing should be easily identified by the employees through clear regulations for proving mobbing. The Law on Labor Relations should be directed to education measures and staff training how to identify mobbing. The roles of the Labor Union and the representatives for health and safety, as leading figures in prevention and protection should be stressed in the Law on Labor Relations. This law should contain clear regulations where precise penalties for the ones causing mobbing must be proposed. Only people with strong personalities based on solid values and with the help and support from their families could survive such psychological terror without many damages, striving to continue their own battle for status and position.

When the Law on Harassment in the work place was adopted the first disputes and proceedings were started where finally the rights, the responsibilities and the obligations of the employers and the employees, concerning emotional and sexual harassment in the work place, were set up. The mobbing protection measures and acts, as well as other questions referring to harassment prevention were also included. The upcoming period is going to show the efficiency of this law, its enforcement and possibility to prevent and prove mobbing inside private and state companies in the RM. It is important to underline the fact that significant steps were made in terms of preventing and proving mobbing. Concerning encouragement and training of employees for taking actions for their own protection, there is a lot of work still to be done. All relevant factors should be included here as well as the appointed superiors, all employees, the Union and other NGOs which deal with Human Rights Protection.

REFERENCES

1. Grizo N., Davitkovski B., Gelevski S., Pavlovska-Daneva A., "Administrative Law" (2011) Academic Press, Skopje
2. ValinZh., Administrative Law (2012), Ars Lamina Skopje

3. Verpo M., Zhaniko L., Public Law, Public Government and Administrative action (2012), Ars Lamina Skopje
4. Journalist Guide through public data (2012), Center for Civil Communications, Skopje
5. Gelevski S., Administrative-process Law (2009), Tihadoel, Skopje
6. GotronK.Zh., European Law (2006), DataPons doo, Skopje
7. Doneli Dz., International Human Rights (2004), Publishing house MI-AN, Skopje
8. European principles on public Administration, SIGMA a joint initiative of OECD and EU
9. Dancic B., Mobbing and Compensation of damages in Serbia, eKapija
10. Vucevic T., Mobbing as deviation phenomenon at work; Mobbing – communication on four feet (2007), Panchevo, page 175-189
11. Jovanovic P., Abusing at work as legal matter, Collection of works, Faculty of Law Novi Sad, 1-2, (2008)
12. Kekenovska – Pavic L., Mobbing Handbook; No room for violence; Mobbing program
13. Mobbing in Montenegro, Social Council Montenegro, Podgorica (2010)
14. Fiti T., Economy, University "St. Cyril and Methodius", Skopje (2008)
15. Femic I., Influence of mobbing on Efficient working, Podgorica (2011)
16. Fromont M., Administrative Law of European countries
17. ShafricDz.M., Rasel E.V., Borik K.P., Introduction in Public Administration
18. European Foundation for the improvent of living and working conditions. Fifth European Working Conditions Survey (2010). www.eurofound.europa.eu
19. Mobbing victims, 77% of the employees in the Republic of Macedonia, www.wwm.org.mk
20. Koic E., Apostolovski J., Most frequently asked questions with answers (2006), www.mobbing.hr
21. Mobbing – truth rarely spoken, <http://money.mnogo.mk/mk/articles/Rabota/mobbing-vistina-za-koja-malku-se-govori>
22. Mobbing – Harassment in the work place, www.Posao.hr
23. National Assembly of the Republic of Serbia, Law on harassment prevention (2010), www.parlament.rs
24. New Law against Mobbing for stronger workers protection, www.kurir.mk
25. <http://mobbing-usa.com>
26. <http://kzd.mk>
27. Law on Labor Relations (Official Gazette of the RM no.52 dated 23.04.2012y.)
28. Law on Labor Relations (Official Gazette of the RM no.54/13 dated 09.04.2013y. - revised text)
29. Law on Protection from Harassment in the work place (Official Gazette of the RM no.79 dated 31.05.2013y.)

MONEY LAUNDERING AS A TYPE OF ORGANIZED CRIME

Prof. Stevan Aleksoski PhD

Assistant professor Ognjen Aleksoski

Abstract: Laundry wash is a new form of crime that endangers stability, transparency and efficiency of financial systems, the developed countries and developing countries.

One of the most widespread and simplest understanding, and according to some authors and simplest definition of the term money laundering is the conversion of "black money in green."

The most comprehensive definition of the term money laundering would be the definition accepted by the G-7 and the FATF, as supplemented by the element of avoiding legal consequences. According to this definition the process of money laundering is: - "The process by which the gains for which it is believed to originate from criminal activity are transported, transferred, converted or incorporated into legal funds in order to conceal their origin, source, movement or ownership. The purpose of the process of money laundering through illegal activities to enable these funds to appear as legitimate, and persons involved in criminal activity to escape the legal consequences of such action. "

Given that money laundering is an international problem, the national regulations of almost all countries contain provisions that prohibit and penalize any kind of organized crime aimed at acquiring illegal material benefit.

The money acquired illegally, criminals need to legalize or black money to resort to legal financial flows in order to conceal their origin, source, movement or ownership.

Key words: Money laundering, organized crime, international conventions and agreements, domestic legislation, social transition, financial system, methods of money laundering, criminal law, corruption.

Introduction

The money laundering is type of crime who endangers the stability, the transparency and the efficiency of the

financial systems in the developed countries and in the transitioning countries as well.

This type of crime is committed around the world in different ways. It is very difficult to discover it because the methods that are being used by the criminals are extremely sophisticated. Given the fact that it is an international problem, all countries have regulations in their national constitution that forbid and punish all kinds of organized crime that aims towards unlawful gaining legal personal assets.

Criminals need to legalize the money that is obtained illegally i.e. these money should be put into legal finances in order to cover up its origin or source, its flow and its possessor.

Defining the term "money laundering"

One of the well-known understanding and according to some authors the simplest definition of the term money laundering is "converting the black money into green"¹. The term 'money laundering' in the USA was first mentioned in the law for bank secrecy in 1970, but as a criminal activity it was first written as punishable in 1986 by obtaining the law for control of the process of money laundering.² The convention of UN against illegal drug trade and other narcotics in

¹Vilijams, Fil, Perenje pari, Bezbednost, str 370

²Edicija, organiziran kriminal, programa Tempus i Kards, povicok stepen obuka za borba protiv organiziraniot kriminal str104

1988 (The Vienna Convention) contains a definition for the term of money laundering which represents a foundation for other international organizations to define the same term. This is the first document that implements the international consensus of the 1980s in relation to the criminalisation of the money laundering. The second important international document that implements a detailed definition of the term is the Convention for money laundering, discovering, freezing and confiscation of profits obtained through criminal acts, which was passed by the European Council in 1990 and also called the Strasbourg Convention. In this convention we can notice an article which is very similar to the one in the Vienna Convention, and the difference is only that it defines that any kind of criminal activity can lead up to money laundering. Also there is an important advancement in the regulation of the jurisdiction when the criminal activity is done outside the country's territory, so the territory is made to be almost unimportant.

The latest international document that has the definition of money laundering is the Palermo Convention in 2000, which was a convention for transnational organized crime of the UN. The regulations of this convention are also similar to the ones in the Vienna Convention, and the exception is that an addition is recommended by which all the member states need to foresee as preliminary "all serious criminal acts" that are defined in the convention. Most of the definitions can be seen in the documents published by the international organizations, but in these definitions we can notice the absence of explicitness in order to put the most suitable component, which are the profits obtained through criminal activity, out of the reach of the law enforcement services, and in that way to protect them from confiscation.

The basis for importing this element into the definitions of the money laundering can

be found in Article 3 (b) in the Vienna Convention where it says: "***with the aim to cover-up or falsify the illegal source of the property or helping any individual that is involved in this kind of criminal activity or activities in order to escape legal consequences from the activity.***"³

According to everything mentioned above, the most detailed definition of the term money laundering would be the one that is accepted by the group G-7 and FATF, but with the addition of the element for escaping the legal consequences. The definition is:

"A process through which the profits, that are believed to be a product of criminal activity, are transported, transferred, converted or put into legal funds with the aim to cover-up their origin, source, circulation and their ownership. The aim of this process is to enable the proceeds from the illegal activities to appear as legal, and the individuals that participate in the criminal activities should escape the legal consequences of their acts."

This definition contains all the elements for criminalisation of the process of money laundering from all kinds of criminal activity: the complexity and the subtlety of the money laundering process; the techniques and the methods that are used during this criminal act and the final goal (making the criminal profits legal and escaping the legal consequences from the same acts).

The methods of money laundering

The basic goal of the organized criminal groups for money laundering is to concealing the origin of the property i.e. the

³Edicija, organiziran kriminal, proekt na programata Tempus i Kards, povisok stepen obuka za borba protiv organiziraniot kriminal, str 107

“laundered” money. In most cases, where property or money is gained through criminal activity, the criminals tend to disguise their origin in order to make sure they’re safe from confiscation of the illegally gained proceeds. Also they want to make sure that they can use those proceeds for their own aims such as development of their criminal acts, and to gain more property and other material goods.

Although the methods that are used in money laundering are considered different, they can be grouped in three large groups:

- Concealing of the true ownership and the origin of the proceeds;
- Achieving control over the proceeds;
- Changing the form of the proceeds with the aim to decrease the large portion of cash that’s been created through the initial criminal acts;

In most cases the “laundered” money are used for buying antiquities, jewellery and many other things that are accompanied with valid documentation (sales bill and aguarantee), so that they can be converted in other forms such as bank deposit, cash etc. However, the criminals’ money are mostly used to create false companies that do not make profit, but just exist as means through which the falsely gained money are deposited in banks and those money are disguised as legit cash and legit profits. Also, the proceeds can be also used for obtaining material goods (cars, jewellery...) and are later converted into cash which is deposited on bank accounts. There are many other ways where the money is converted and is used for buying: paintings, gold, stocks, casino tokens/chips, foreign currencies etc.

The process of money laundering

Because of the variety of the methods, the authors and the institutions have accepted the hypothesis that the process of money laundering has three phases, which are the following:

Placement (Incorporating into the system)

Layering (Covering-up the documentation)

Integration (the illegal money is blended with the legal finances)

The first phase or the placement represents the removal of the direct relation between the funds and the criminal activity. The second phase is the concealment of the traces that have been made during the criminal act and the third phase is the process of making the “laundered” money available to the criminals.

- 1) In the **first phase** the “dirty money” is introduced into the legal system. For this aim, the criminals use different techniques and methods. They most often buy goods and services or deposit money into the bank system in order to disguise the real depositor. In most cases they separate the real amount of money into smaller amounts among individuals or companies, so that they can deposit the money into the legal system more easily. Then they use the money as an asset that can be legally used in clubs, casinos and restaurants or that can be pledged as deposits into the bank.
- 2) The aim of the **second phase** is concealing the proceeds by covering-up all relation and documented trace that might have appeared in the placement. All kinds of instruments and methods are used in these phase, such as returning the proceeds

through false transactions, fictitious and enlarged invoice or through depositing the money in stocks and shares.

- 3) If both of the phases are successfully accomplished by importing the money into the legal system then we proceed with the **third phase** that is using the money. In this phase, the money is returned to its owner who can use them as legal for personal needs.

These phases in the process of money laundering may seem to us as isolated and individual, but they are related and even overlap sometimes.

In literature and in real life, it is shown that the phase of the money placement is the most risky for the “money launderers”.⁴ The Macedonian and the international research has determined the vulnerability points in the process of money laundering that are most easily discoverable. Those vulnerability points were published by FATF and are the following:

- The cash is imported into the financial systems
- Transfer from and into the financial systems
- The cash is transferred outside the borders

The vulnerability points in this process are mostly a result from the need of money laundering in the banks and other institutions, as well as financial and non-financial institutions that do some financial services. We cannot think that these vulnerability points will exist by themselves without respecting some regulations of the banking sector. Because of this the employees in the banks are specifically trained to recognize false and

suspicious transactions. The institutions in those countries that are severely engaged in the fight for prevention from money laundering work together against this phenomenon. In these countries there are many different services that are obligated to prevent the money laundering process and other types of organized crime.

In the phase of layering, many attempts are made to provide the laundered money so that they do not differ from the money of the legal funds. This can be accomplished by using complexity and plurality in the transactions, and by making transactions quite often. The cover-up is also made by insisting to make the transaction through several national borders, which will be extremely difficult for the law enforcement services that trace the money. The transnational movement of the money is the fundamental component of many money laundering schemes, and that enables to differ the ‘dirty’ money from the legally obtained money.

The role of the banks in the money laundering process

The banks have the key role in the protection from money laundering as a result of their role in the international money funds.

The data for recognizing the money laundering are gathered in the following cases:

- Opening an account;
- For every transaction with total amount of 15.000 euros (cash or credit transaction);
- For many interrelated transaction whose total amount is 15.000 euros;
- For insurance jobs;
- For lotteries that are pay in and pay out amounts of 100 euros;

The banks constitute an **internal control** for the efficiency of the fight

⁴Vilijams, F, Perenje pari, Bezbednost

against the money laundering. The internal control covers all organizational sectors where money laundering may appear.

The development of the bank system of Macedonia has converted the banks into places, where large and complex transactions are done.

The banks are capable to discover early the unusual schemes of transactions that are done without legitimate economic and other reasons.

The bank record is available for the regulatory authorities and can be a good evidence for criminal pursuit.

If the banks are involved into the money laundering, the credibility that the public has for them is violated.

One of the most successful cases for preventing the money laundering is the action against the Bank of Credit and Commerce International (BCCI) that “laundered” around 32 million US dollars. The bank paid a fine of 15.3 million US dollars and lost 530.000 depositors with their 12.4 billion US dollars.

Also I should mention those shell banks where it is not accounted at all for the origin of the money. These banks are heaven for the criminals, because they take all the laundered money from around the world.

The conventions as an international legal frame for prevention of money laundering

The international legal for prevention of money laundering is represented by the three conventions:

1. The UN Convention against the unlawful trade with narcotics and psychotropic drugs (The Vienna Convention) in 1988;

2. The Convention of the European Council for money laundering, discovering, freezing and confiscation of profits obtained through criminal acts (The Strasbourg Convention) in 1990;
3. The UN Convention against transnational organize criminal (The Palermo Convention) in 2000.

The Vienna Convention

The general belief, that money laundering and the confiscation of the criminal profits are the most important components of the global strategy against the trade with narcotic drugs, was finally accepted by passing the Vienna Convention. The Vienna Convention made the first international law bases for fulfilling the previously mentioned requests. It contains a strict obligation for the money laundering incrimination and a very vast list of acts for narcotic drugs trade related to money laundering; from the production and the trade, to the organization, the management and the finances of this illegal trade. This convention suggests an incrimination of the following:

- Conversion or transfer of the ownership, if it is acknowledged that it derives from acts that are projected by this convention or from a participation in such act or from helping a person that's involved in committing such act in order to escape the legal consequences;
- Hiding or covering-up the real origin, source, place, the movement and the rights related to the ownership of the property, and knowing that this property is a result from committing or participating acts projected by the convention.

Concerning the validation of the acts, the Vienna Convention accepted a definition in the 3rd article, which was later used in the next conventions:

The conclusion that it's a question of past acts of money laundering or that the aim or the intention of the money laundering can be made upon the objective circumstances.

In Article 5 of the Vienna Convention was passed the following act:

The signer states will consider if it should be requested from the perpetrator to prove that the profits (that are probably from criminal acts or that are confiscated) are legit, as long as that request is consistent with the principles of the national jurisdiction and with the nature of the proceedings.

The Vienna Convention requests that each signer authorizes its courts and other competent institutions that can approve an access to the bank, finance or trade accounts, so that an identification, discovery or a confiscation can't be rejected due to bank secrecy. This convention contains special techniques for identification and discovery of the acts.

The Strasbourg Convention

The Strasbourg Convention was an addition to the existing conventions of the European council in the criminal law. A whole set of new rules were added that cover all the phases of the procedure; from the first research to the decision to confiscate and the actual confiscation. It affirms the definitions that were made on the Vienna Convention by improving them and by making more strict rules for the signer states.

In the Strasbourg Convention, the money laundering is defined as an act done with the intention to:

- Convert or transfer the property for which the knows it consists of things obtained through criminal activity, cover-up or change perpetrator of the origin of the property, or by helping an individual that participated in a criminal act to escape from the consequences;
- Conceal the nature, the origin, the place, the movement or the true ownership of the property, or the rights that derive from it and for which the perpetrator that are results of criminal activities;
- Buy, keep or use the property, and knowing in those moments that it's a result from criminal activities.
- Participate in an act projected by this article, as well as negotiating or attempting to participate, help or counsel in the criminal act.

One of the aims of this convention is to make the international collaboration easier, and confiscation of the proceeds of any type of crime.

The Strasbourg Convention has broadened its definition by containing a public obligation for the signer states to pursue in case of money laundering in other states and subject the criminal to the criminal jurisdiction of the state. It also contains another article that broadens its definition which is about the subjective side of the money laundering. It is related to money laundering by negligence i.e. the perpetrator didn't know, but was supposed to know and was able to see that the proceeds are result of criminal activities.

The Palermo Convention

This convention gives obligations to the states that signed it, and considers the following acts as type of money laundering:

- Replacement or transfer of a property while knowing that it is a proceed from a criminal act; hiding or disguising the illegal origin of the property or helping an individual involved into a criminal act to escape the consequences;
- Hiding or disguising the true origin, source, location, movement or ownership of the property or its rights.
- Obtaining, having into possession or using a property while knowing that it is a result of criminal activities;
- Participating in negotiation, plotting or trying to do criminal act, or inducing and helping in a criminal activities.

Concerning the criminalisation of the money laundering, this convention has accepted the definitions from the previous international documents, but is better than the other convention because it projects an opportunity as the broadest coverage of previous punishable acts.⁵This convention projects a sentence of at least 4 years, and for the cases where the legislature of the signer stated contains a list of specific previous acts, they should be included in the broader list for acts related to organized criminal groups. It also proposes criminal responsibility for money laundering of juridical person. The signer state is entrusted to give an affective, proportional, punishable or non-punishable sanctions, as well as money sanctions to every responsible juridical person. The approach toward the definition of money laundering that ends the Palermo Convention has primary importance in the prevention, the repression and the international collaboration, that it appears as an inevitable condition for effective inhibition of the money laundering. Any kind of national strategy or joint action of the states must be in accordance to the consistent criminal law's definition of the term 'money laundering'. The inner legislature regardless

of it's about finance, bank or administration laws, it must be based on only one definition that is included in the criminal legislature.

The articles in the Palermo Convention that are extensive on purpose, raise the level of international collaboration as well as the level of the signer states' obligation for adjusting the home legal system to the aims and the functions of that type of collaboration, and to the need of inserting special measures in the national legislature for prevention, discovery and control of the money laundering.

Forty FATAF⁶ recommendations

FATAF is an international body formed in 1989 by the group of most developed G-7 countries and the European Council, which is specialised and concentrated especially on the fight against money laundering. Besides having its own location, it is not a permanent organization nor a body of law related conventions, but it's a grouping of governments and other subjects around the same point that is developing and following the convergent and detailed strategies for the fight against money laundering, which are based on the international collaboration. These strategies simplify the requests for strengthening the effectiveness of the financial system and the freedom concerning the legal financial transactions. It is of key importance to fulfil the aims of this package with forty recommendations for counter measures that are enclosed in the report from February 1990. Firstly it is worth mentioning that the forty recommendations for an action do not have an obligatory law force concerning the international law, but some of them are present in the articles of the existing conventions for prevention of money laundering.

⁵ Perenje pari - D-r Sladjana Taseva, Skopje 2003
50

⁶ Financial action task force

The FATAF recommendations open a new dimension for the prevention of money laundering. The role of the criminal law repression is acknowledged, as well as the central role of the criminal profits as inevitable in bribing the financial power of the groups for organized criminal. However, relying only on the recommendations is inadequate and inefficient, so a broad list of money laundering reduction is needed.

The banks and the other financial institutions need to be put in front line of the fight against money laundering. That will not only stop the spread of the crime, but it will save and protect the sovereignty, stability and the integrity of the financial institutions.

The general list of recommendations contains three basic postulates:

1. Every country immediately needs to start making start a ratification and a complete implementation of the Vienna convention;
2. The laws for secrecy in the work of the financial institutions need to be formulated in a way that will not interfere with the implementation of the recommendations;
3. The effective programme for money laundering prevention needs to enclose more intensive multilateral collaboration and mutual legal assistance in the investigation, the accusation and the extradition of the money cases.

According to the content of the recommendations, they can be divided in a few groups:

The first group contains the recommendations from the fourth to the eight, which aim to perfect the national law systems, criminalise the money laundering, and pass suitable laws for confiscation and relevant temporary measures. The

seventh recommendation, that regulates the corporative criminal responsibility, is of utmost importance and does not have special articles in the Vienna or Strasbourg Convention.

The second group of recommendations concerns the specific measures and encloses the recommendations from number nine to number twenty-nine. They articulate the strategy for engagement of the financial system in the fight against money laundering. According to these recommendations, the financial institutions are the key element in discovering the illegal transactions, because of their unique function in the pay systems of the countries and in collecting and transferring the financial assets. The basic policies in this group are the following:

- Know the client (obligatory identification);
- Legality and ethics of the banks and the other institutions during work, and in case of a rejection of services for which it is suspected to be related to money laundering;
- Collaboration with the authorities;
- Using special steps in identification and in making internal documentation for the transactions.

The third group of recommendations relates to the simplification of the international communication between the authorities, the prosecutors, the financial regulators and the supervisors. The aim of these recommendations is to create better conditions for information exchange about the suspicious transactions, and about the expansion of the information for the international movement of the narcotic money, especially the cash, and about the methods of money laundering.

In order to fulfil these aims, there are certain priorities:

- Supervision and implementation of the recommendations;
- Following the tendencies in the money laundering methods and examining the adequacy of the recommended counter measures;
- Conducting an ambitious programme for foreign affairs to contribute to the mobilisation of the broad international community for efficient inhibition of the money laundering.

The directive of the EU Council from 1991 for money laundering prevention

The directive of the EU Council from 1991 starts with a criminal investigation and ends with the Strasbourg Convention. This convention is preventive, in contrast to the Strasbourg and the Vienna Convention that are repressive.

The adoption of this convention was motivated by the need of securing “integrity, consistency and stability of the financial system” in the movement towards a unique European market.⁷ This adoption created excellent conditions for free movement of the capital and the financial services with which we have a legal business, but this also enabled an expansion of the organized criminal. The directive has an “open system” of unified measures with which each member state can create even more strict measures for fulfilling the decided aim.

The content of the directive was under a large influence of the recommendations from 1990, and the measures against money laundering of FATAF. The interesting part of the directive is that it doesn't not influence only

the member states of EU, but also outside these countries' borders.

The directive 2001/97/EC of the European Parliament and the Council of EC from 2001 that changed the directive from 1991

This directive changed and made an addition to some articles in the directive that was adopted in 1991. This directive the term of criminal activity is specified as “serious act” together with the activities that were listed in the Vienna Convention, the activities of the criminal organizations, corruption, fraud and other acts that result in criminal profits. The first article of the directive contains the definition of money laundering which is the following – it is money laundering even if the activities that generated the assets that need to be legalized were done on the territory of another member state or completely other state.⁸ In this article it is declared that the states outside EU are also subjected to the directive's articles. Also the counter measures and mechanisms against money laundering are emphasized.

The peculiarity is that the member states can expand the articles to all professions and juridical persons if there is even the smallest suspicion that they are involved in a money laundering process. Also the member states have some obligations: obligatory identification⁹ of clients when entering in business relations, and especially when opening an account or savings deposit or when offering deposit

⁷ Strategija za sprečevanje na perenje pari, Ministerstvo za vnatrezni raboti, Direkcija za sprečevanje perenje pari, str.196

⁸ Strategija za sprečevanje na perenje pari, Ministerstvo za vnatrezni raboti, Direkcija za sprečevanje perenje pari, str.196

⁹ Identifikacija-utvrđivanje na imeto na liceto preko licna karta ili pasoz, datum na radjanje i adresa i utvrđivanje na tipot, brojot i organot koj go izdal oficijalniot identifikacionen dokument

safe; obligatory identification for some insurance policies; obligating the credit institutions and the financial institutions to identify even when the transaction is below a certain limit, whenever there's a suspicion for money laundering; keeping all the documentation in case of an investigation; the credit and the financial institutions are obliged to investigate suspicious transactions; obligating the credit institutions and the financial institutions to inform the authorities about any fact that might be an initiative for money laundering; keeping all the documentation in case of an investigation; the financial sector is obligated to give relevant data to the authorities and keep it as a business secret; the member states are also obliged to implement the directives of the EU in their national legislature.

The mechanisms against money laundering in RM

The sector that fights against money laundering and terrorism – gathers, analyses and keeps data and information that are obtained by the obligors.

When there's a suspicion for money laundering, the head office informs the authorities;

The head office insists on the collaboration with other state institutions and improves the system for money laundering prevention and discovery in Republic of Macedonia.

Law for money laundering prevention

The law that prevents money laundering was adopted in 2004 and it was later changed and edited a few times. The last change was made in 2007;

The law defines: the basic terms related to money laundering, the subjects entitled to take preventive measures against

money laundering and the things that the subjects are obliged to do;

The obligatory things are the following:

- Identifying the customers (*know your customer*) and
- Collecting data about foreigners and transactions.

Institutions counter money laundering

Founding and work group for collaboration of different districts which all the agencies and institutions that are involved in the process against money laundering could join.

The membership in the group is obligatory for:

- The sector against money laundering and terrorism
- Public Revenue Office
- Customs Administration
- Ministry of Justice and Public Prosecutors' Office
- Ministry for internal affairs
- Financial crime police
- Intelligence Agency

Conclusion

The organized crime in form of money laundering cannot be eliminated. It is a process that involves many criminally oriented people that are even supported by the institutions which control the legalisation of the money.

The indicators that can be followed are: secrets concerning the business structures, malpractice of the lawful business, using falsified documents, using

the international jurisdiction systems and using unknown assets and so on.

By using the mechanisms for fight against this type of crime, we can decrease the crime, but we can't eliminate it.

This type of crime is present around the world, and because of it the countries work together and use all sorts of tactics and techniques to easily discover, follow and prove this crime that is a great danger for the future of every country on a global scale.

Only through the collaboration among the countries, respecting the law and the norms of the country and of the international conventions, and through the loyalty of the people in the institutions that fight against crime, as well as the loyalty of the bank employee, can we more easily

discover and decrease this type of crime on a low and reasonable level.

References:

- Едиција: Организиран криминал, Проект на програмата Темпус и Кардс, Повисок степен обука за борба против организираниот криминал
- Вилијамс Фил – Перење пари
- Перење пари – Слаѓана Тасева, Скопје, 2003 година
- Криминологија- Стеван Алексоски, Штип, 2009 година
- Стратегија за спречување перење пари, Министерство за финансии, Дирекција за спречување перење пари, 2005 година
- Кривичен законик на РМ
- Казнено право, посебен дел – Владо Камбовски

CRIMINAL LEGAL POLICY OF REPUBLIC OF MACEDONIA IN CASE OF CRIMES RELATED TO ABUSE OF THE PROCEDURE FOR BANKRUPTCY

Student of master law faculty: Kristina Balabanova

Law faculty - Shtip,; 2000 Shtip, Republic of Macedonia

kristina.2288@hotmail.com

ABSTRACT: The bankruptcy procedure is essentially a legal procedure which is governed by bankruptcy law, but there is interweaving of economics and rights because over the company, which is an economic entity is conducted legal proceedings. Interdisciplinary is reflected in the fact that under the authority of the law and the authority of the bodies which the law sets as carriers of the proceedings, bankruptcy judges, Trustees, I dismissed the economic problems of enterprises or dismissed major issues that could not initially be neat and loose during the normal operation of enterprises. Fans in terms of bankruptcy are based on the dating of the economic environment, most frequently as a result of a decision of the management.

Key words: *bankruptcy procedure, reorganization, creditors*

1. INTRODUCTION

Bankruptcy is the strictest measure of termination of the company due to the fact that the aim is to protect the creditor's interests. In this case the decision to initiate bankruptcy proceedings bears the competent court and that the court in which the company is registered in the Trade Register. So will the partners (shareholders) is not important. Therefore, this type of termination is forced. The task of the authorities to enforce the bankruptcy is to realize cashing the debtor's assets and the distribution of income or realized through the event of a special agreement for the settlement of the claim determined by the bankruptcy plan aimed at further down the company as a debtor, to perform collectively settlement of creditors whose interests are endangered due to prolonged

stay in the operations of the company or bringing in insolvent condition.

Bankruptcy proceedings aims collective settlement of creditors of the debtor with cashing the debtor's property and distribution of realized assets (revenues) of creditors or by concluding a separate contract for the settlement of the claims set forth in the plan of reorganization is aimed at further maintenance of the debtor business venture.

With the reorganization can be performed and settlement of claims before the opening of bankruptcy proceedings under the conditions stipulated by the Law on Bankruptcy. The main purpose of bankruptcy proceedings is the collective settlement of creditors of the debtor. This is quite clear that all creditors be settled collectively without giving priority to any creditor. Settlement can be done before the opening of bankruptcy proceedings if the proposed plan of reorganization. The main goal of the procedure is the collective settlement of two ways, a settlement that is voluntary and left to the disposition of the parties but without disturbing the main purpose of the bankruptcy procedure and it is the collective settlement.

In proceedings where there is no plan for reorganization by submitting a proposal for the opening of bankruptcy proceedings or voluntary settlement is reached, the decision on the outcome of the procedure adopted by the assembly of creditors of the first reporting hearing.

2. CHARACTERISTICS OF BANKRUPTCY PROCEEDINGS - COMPARATIVE ANALYSIS OF EUROPEAN COUNTRIES AND THE REPUBLIC OF MACEDONIA

The abuse of the bankruptcy proceedings, or as today in modern times also called dishonest bankruptcy proceedings, those proceedings in which the debtor or the individual participant in the bankruptcy proceedings intends not only to damage the creditor, before bankruptcy, expecting another advance that bankruptcy will be open, as well as the opening of bankruptcy proceedings, while implementing specific goals and objectives for achieving private material assets or other activities which not only harms the creditor, but also the national economy and stability of the same.

Here it is in fact a "crime of white collars" which includes most respectable people in the execution and implementation of professional and business activities, or their causes are mainly members of the management of companies. This is very often highly educated professionals who are well familiar with the regulations and standards and is well concealed within the implementation of criminal offenses, unlike the ordinary causes of offenses. However, it is a crime in the truest sense of the word, and in the form that is much more difficult to detect where there is need of greater expertise, skills and knowledge, by the bodies of criminal prosecution in order to be able to track down the complex operations that creditors or the entire environment suffer major damage and negative consequences.

In the European Union clearly recognize the challenges of the distinction of honest and dishonest borrowers, where the need for a sharp confrontation with dishonest behavior in the work are increasing. By the end of the year 2002ra implement certain group and the final report of a group of high-ranking experts on trade law for the modern regulatory framework for European commercial law group colloquially called

Vinterova group, noting that it is necessary to define the responsibility of management before bankruptcy, saying that this is not narrow area of bankruptcy law, but a key element of the appropriate composition of the Management Company.

Also propose appropriate sanction that could have an effect and acts on the whole territory of the Union where it is possible to implement and cause long-term positive effects. Within such notification the European Commission in 2003 and has implemented an action plan of action.

With this plan, it is proposed to introduce several rules nepochituvanoto operation under which directors could be personally responsible for the consequences of the failed operation of the company, if it is foreseeable that the company can not continue to settle their obligations, but they do not decide nor to save and make sure i paying debts, nor to liquidate. The plan is to turn this approach precisely because most of the abuses of the bankruptcy proceedings are on this order, the directors of the executive boards of the company, intentionally contributing to the company's collapse and to initiate bankruptcy proceedings in order to be able to continue again with the same thing in another company.

This plan is actually an extension of several similar initiatives that have been launched since the 90 years in which academic experts dealing under German law by abusing the bankruptcy proceedings warned of excessive bankruptcy proceedings in which debtors were stripped completely without any value properties , just because it delayed the bankruptcy proceedings. It should be borne in mind here that relates to behavior and approach that begins long before the moment at which the debtor meets the conditions for the opening of bankruptcy or significantly earlier than the occurrence of insolvency.

In Macedonia, however, these methods of abuse of bankruptcy procedures, are

described within the Penal Code, Article 96-a, as well as Article 254, which is quite justifiably thought that citizens were having difficulties acquiring the prohibited behaviors because their descriptions were dispersed and unorganized in the most different laws which require more knowledge of law than usual in order for them to know.

Criminal Code of the Republic of Macedonia, for example, states that one who intended guide to avoid the obligation to pay, causes a bankruptcy by an apparent selling of property or a part thereof, by transferring funds to other accounts or transfer free of charge or selling at excessively low value, concluding false agreements about debt or acknowledging untruthful claims, by concealing, destroying, changing or maintaining business records so that it can not determine its real property, shall be punished with imprisonment of one to five years and fine .

Also, the Criminal Code of the Republic of Macedonia, Article 256 states that one who in the bankruptcy procedure, reports a false claim or a claim on a false payment order to realize a right that does not belong, shall be punished by a fine or imprisonment up to one year. A principal member of the board of trustees or trustee, who for himself or for another person receives benefits or promise of financial advantage, to take or not to take a decision in a certain sense or nadrug way damages at least one creditor in the proceedings bankruptcy shall be punished by a fine or imprisonment of up to three years.

In addition, this framework highlights the Criminal Code false bankruptcy and abuse of bankruptcy, which applies to those provisions, may be given a copy of the practical use of Article 256, which itself presents quality content these provisions. Sample the courts who registered three quarter of the legal entities in Macedonia, six-year period from 2000 to 2006, Popovski not found any finalized subject of this article.

When this practice would be a realistic picture of the situation that would mean that the judiciary is no privilege in absolutely perfect Bankruptcy composition, but it is quite clear why this has not been revealed publicly.

The provisions in the bankruptcy offenses are found elsewhere in the Criminal Code. It is difficult to understand why they are not neatly summarized in one place together. Also have to mention the fact why still in Company Law, as is the case with several neighboring countries, Croatia, Bulgaria also there are several legal provisions of abuse of bankruptcy in their Company Law, while in Macedonia still not implemented these provisions.

For example, in Croatia, the Company Law, Article 626, a provision stipulating entitled Violation of duty in the event of loss, over-indebtedness or insolvency, where highlights the extremely complex provision which refers to six other various articles of the Code, where it seeks to define the cases in which the persons responsible are driven bankruptcy of time and should be sanctioned because of the listed offenses.

However, according to the analysis of these legal provisions may be mentioned that it is extremely complicated, which has a series of shortcomings and ambiguities, the lack of the concept of negligence of the Criminal Code of Croatia, through the uncertainty of whether there may be cause to implement this offense, the problem of determining the term of limitation.

In the context of bankruptcy it should also be borne in mind that according to the Company Law the one that misused as a destination for an article Company not liable for the liabilities of the company can not invoke it in law not match the commitments given . Therefore, it should be analyzed and the fact that members of the company is abusing its position and assume obligations to the extent that the company could no longer endure, which is

directly or indirectly also leads to bankruptcy.

If those responsible have done such a thing, they are exposed directly and should, be held to account directly with its own assets, for prichinetite offenses that abused their duties and positions which eventually resulted in the bankruptcy of the company.

From here in the Companies Law in Macedonia, although still not directly mentioned provisions on abuse of bankruptcy, there are several articles and provisions that can be implemented in such forms, which are used terms of giving incorrect information incorrect presentation of financial statements and the like.

Also, except legal entities, it is necessary to start in Macedonia for such a crime to process and individuals. There is still much to be present within the issue of whether the legal entity may be responsible for anything, where such discussion is mostly delivered to the legal science. It should state the fact that in practice the difficult forms of economic crime today is mainly a consequence of the actions not only of the lone individual, but an array persons in companies in order to achieve profit at any cost. Therefore, of great importance to bring the law in an effort to face the problem of hard odredlivata responsibility for apparent violations of the rules of proper operation in the economic environment in the Macedonian market. Especially should emphasize the fact that you can punish and legal persons in bankruptcy for offenses caused before the initiation or during the bankruptcy proceedings.

Such laws, where Macedonia should take and they as an example of nearby, neighboring countries should be implemented as the basis for determining the responsibility for accepting the theory of identification, which legal persons who identify with individuals who cause offense in benefit of a legal person. From here, the individual metaphorically represents the

will of the legal person and causes an offense for the benefit of a legal person, where it and said work can be attributed to the legal person. Individual behavior and penalize legal entity linking the powers of the responsible person of representation, decision making and execution supervision.

Of this is more than clear that in bankruptcy or abuse of the bankruptcy proceedings should be strong and sound legal basis for processing and legal persons for offenses that are made in favor of themselves legal entities. But within the bankruptcy proceedings often offenses make up all damage, which is not in favor of legal entities because those responsible directors, administration, damages their own company.

Because this may not always be expected that under the reform laws in Macedonia, can stretch more actions against legal entities, bankruptcy debtors, but judicial attention should focus on the individual, individuals.

There are attempts to prevent persons who have charge and insolvent company in order to establish and register new companies. From here, more than known that board members and officers in entrepreneurial or insolvent companies had a practice of opening the bankruptcy, which previous commitments have stopped, where the opening of the new company was also immediately implemented and already ispraksirano. This should be prevented, according to samples where the European legislative framework, the report of the new company in the Trade Register, the company founder is obliged to submit a statement that neither he nor the company have a share and shares outstanding and no outstanding obligations.

Unfortunately, the said provision and the law within which incorporated not managed yet to be fully realized and change existing practice in the economic environment on the Macedonian market in respect of such offenses. Persons responsible in

entrepreneurial or insolvent companies simply set up new companies, or even buy shares in other companies on behalf of friends and acquaintances, family members, or have more registered companies hold in abeyance, which activate as required and thus deceived the law and the intentions of legislators, implementing huge instability in the economic system an earth.

3. CONCLUSION

The fact is that bankruptcy is an integral part of life for all companies, competitive economies and advanced social environments today. Although companies as legal entities are created on the basis of assumptions for permanent operation, ie the assumption of infinite time horizon of life, that operation, in practice there are a few rare societies that have managed to survive long. Furthermore, bankruptcy is part of everyday life of business life, and as such is destined for economists as an object of interest.

Bankruptcy regime often considered even a key part of the market economy nowadays. The ability to effectively resolve bankruptcies allows normal and efficient functioning of the economy and preserve its stability and progress. Economics today, within the bankruptcy can give particular contribution to the bodies of bankruptcy proceedings bankruptcy judge trustees, the board of creditors, and the bankruptcy composition in general, and within the avoidance of bankruptcy in a situation where you can still avoid bankruptcy restructuring, and those borrowers whose restructuring is no rational - economic justification.

Any company over a bankruptcy within the business and financial difficulties, and of course each of these companies do not have to be an economically inefficient. The economic efficiency of company in difficulties mean that there is no alternative use of his property would contribute to a greater contribution in this situation.

The bankruptcy procedure as such, should be aimed at the salvation of all economic efficient bankruptcy debtors, but in fact it is the qualification of debtors economically efficient and economically inefficient shows that it is extremely complex case. Here are highlights requirement for this classification of determining the values of borrowers in the case in which it is engaged in its best alternative use. this value cannot be found either in accounting or in the financial statements but can only be estimated. The choice of methods of estimates affects the outcome of the analysis of the alternative value of the property.

Important characteristics of the Bankruptcy composition have a huge impact on micro economical level of the economy, the development of entrepreneurship in Macedonia. Macroeconomic stability is also determined by the quality of the Bankruptcy composition, which is particularly true after the great crisis of the surrounding world, the global market at the end of last century. After this crisis, once again highlights the importance of such a bankruptcy procedure, a procedure where a period can then be implemented and wave to academic interests in the area of bankruptcy which resulted in numerous jobs and activities in this field.

However, only legal initiation of bankruptcy can initiate any restructuring of the company, or company. However, it should be recognized the fact that management in Macedonia soon and that there were no grounds for the exercise of bankruptcies.

In order to implement an even better insight into the practical problems of the abuse of the bankruptcy proceedings and bankruptcy such as in Macedonia, conducted a survey analyzing bankruptcy practitioners in Macedonia. Analysis of the results of large helped to identify the problem and its possible solutions to such issues.

It observed that in Macedonia practically implement extremely small restructuring in bankruptcy, where entities are just a few tens of thousands, but few of them really are in bankruptcy, although legislation and framework for a bankruptcy. With smaller proportion of open cases of bankruptcy within i number of subjects, is even smaller share of the implemented restructuring in bankruptcy, where the other party in Macedonia appears still outstanding trend of outstanding obligations amounting to blocked accounts, surpassing large sums, creating inactive legal entities with no employees in a long blockade that lasts through the years and days.

Moreover, Macedonia mention and another growing trend of above mentioned - abuse of the bankruptcy procedure aimed at implementing personal or specific benefits. Today bankruptcy offenses even more used term offenses where within these works all prohibited behaviors are related to the economic entities that are in a state of insolvency usually intentional. Thus the notion of enterprise bankruptcy offense unjustifiably expands because insolvency does not mean always a necessity for bringing bankruptcy.

Sometimes as bankruptcy offenses stating violation of the obligations of managing trade and business books, unconscious economic performance as well as fraud and mismanagement in the economic activity of the company. However, it is mostly for acts in the legal description Macedonian legislative regulations does not represent the actual situation which is the legal presumption for the opening of bankruptcy proceedings since these cases could equally be made in the economic entities that operate successfully and in those meet the legal bankruptcy reasons.

A significant problem exists within the Macedonian legal regulation and in the legal persecution of bankruptcy offenses by the notion of burdened with debts and insolvency of certain provisions of the Bankruptcy Code requires major change. It would also lead to practical difficulties in determining when a commercial entity would be insolvent, or when you gain the factual circumstances of the legal description of the offense, and consequently to legal uncertainty. For these reasons it is through the detailed study of the provisions of the Bankruptcy Act pertaining strictly to the bankruptcy proceedings, their abuse as well as those concerning the annulment of the legal activities of the insolvent borrowers.

In order to implement this particular greater ambition by the Republic of Macedonia about the issue, education, education, encouraging the importance of the issue, as well as implementation and harmonization of European standards in the bankruptcy operations in the country.

4. REFERENCES

1. Максимовски, Р.: Заштита на правата на доверителите во стечајна постапка, Правен Дијалог Број 2, Институт за човекови права, Јануари, 2011
2. EurActiv (2011), How many bankrupt companies get a second chance? News article
3. Čuveljak, Jelena: Odgovornost članova uprave trgovačkog društva zbog nepokretanja stečajnog postupka, Hrvatska pravna revija, br. 3/01, Zagreb, 2001
4. Landier A. (2005) Entrepreneurship and the stigma of failure
5. Кривичниот законик на Р.Македонија (Службен весник на Република Македонија, бр. 37/96, бр.80/99, бр.4/2002 година, бр.43/2003, бр.19/2004, бр.81/2005, бр.60/06, 73/06 бр.7/08, бр.114/09, бр.51/11;

COMPETENCE OF THE STATE AUDIT OFFICE OF THE REPUBLIC OF MACEDONIA AND REVIEW OF THE INTOSAI STANDARDS AND REPORTS OF THE STATE AUDIT

Lence Filipova, master's student at the Faculty of Law at University "Goce Delchev"-Stip,
Macedonia e-mail: lence.filipova@ugd.edu.mk;

Abstract: The State Audit is the most important institution which conducts supervision of the Budget expenditures. This is regulated with the State Audit Law which provides the legal framework of the State Audit Office operation in Republic of Macedonia.

This paper focuses on the competences of the State Audit Office and its regulations within domestic legislation. In order to offer an in-depth research, the State Audit Reports for 2012 and 2013 have been analyzed, as well as the extent of corrections based on the recommendations to the audited. This will lead to further ideas, conclusions and findings in the area of the State Audit.

It will also pertain the INTOSAI standards, the International Standards for State Audit Institutions generated by the Committee for State Audit on the XIV INTOSAI Congress in 1992 in Washington and with the amendments adopted on the XV Congress of INTOSAI in 1995 in Cairo.

Key words: *revision, responsibility, budget finances, State Audit report.*

Introduction

The word for "audit" is "revizija" in Macedonian and contains the same root as the English word "revision". It means to investigate, verify or correct the financial documentation, as well to inspect its accuracy (Blazevska, 2002). It is derived from the Latin verb "revidere", meaning to inspect or investigate, but also from new Latin "revisio", meaning to inspect or investigate something again (Jankulovska, 2011, page 3). The word "revision" is derived from the Latin "audire", which means "to listen". The person who revises was expected to listen and revise the finances. The increased development of trading in the 19th century required greater financing, which was procured by a larger number of investors. The practice of mutual ownership of companies began, as well as companies with limited liability. The owners of the companies started employing

managers who would manage their businesses, and who were obliged to give reports on their work usually once a year. It was common for the investors not to be familiar with the business in which they entrusted their financial means, *or knew very little of it, hence they were not aware of the authenticity of the financial reports which the managers submitted* (Handbook for Internal Audit). For that reason a third, independent person was assigned, who was responsible for inspecting the accounts, investigating and examining the accuracy, in order to give professional opinion. At the beginning the financial reports were oral. Then the person professionally hired to listen to the manager's report informed the investors of his opinion. These so called listeners were later called, what we nowadays refer to as "revisori" (auditors) in Macedonian. Later, these reports developed into written financial reports, but the term "revizor" or "listener" remained.

The audit is an inspection into the financial reports, which refers to a subject financially oriented or not, with no relevance of the subject's size and legal form, when the purpose is giving an opinion about it (Vukoja, B).

In most countries, as well as in Macedonia, there is a special state organ which performs the work of state audit, and that is the State Audit Office. The State Audit Office has the status of an independent legal subject.

1. What is the State Audit

The conditions and circumstances in the society in which we live are such that require an increased interest in the ways in which budget finances have been used, as well as the legal subject who supervises the

public expenditures. These activities are under the authority of the State Audit Office. Its successful functioning and acting in accordance with the directions and recommendations given by this state organ is of vital importance and more than necessary for a country which follows the path towards European integration. The State Audit Office, as a state organ, is an independent institution which revises the use of the budget finances, and was founded in order to protect the interests of the country, on the one hand, but the interests of the citizens, who are obliged to pay taxes, on the other hand, as well. It aims at obtaining efficient and allocated use of the public finances in order to provide safe functioning of the state. The conclusions and recommendations included in the State Audit reports are often in the form of advice, but it is expected that this organ will have a more decision making character in the future. This will increase the responsibility on the part of the subjects of revision and the country as well in the direction of correct and efficient use of the budget.

Tom Lee, who is one of the most renowned audit theoreticians, in 1984, has given the common definition of the term: *“In the broadest sense of the word, audit is a means by which a person is assured by another person in the quality, condition, or status of an issue questioned by such other person; the need for audit arises because the person is in doubt or suspicion in the quality, condition, or status of the underlying issues, and is not personally able to eliminate the suspicion or doubt”* (Lee, 1984, page 38).

In fact, the audit represents *an additional inspection into the professional work, based on the existing documents, and contrary to a type of control, it has a corrective character* (Jankulovska, 2011, page 3). The audit represents a method of inspection of the accounting reports, the data from the mainbooks and other documents in order to obtain an authentic information about the economic and

financial condition of a firm (Stanoevski, 1998, page 324).

It is a lawful obligation that the audit performs inspection into the use of the public finances, and to obtain information for the state institutions and the public about the regularities and irregularities in the use of those means.¹

From the experience the State Audit Office has had so far, there is significant advancement in meeting the objectives, that is, the State Audit Office not only advances the forms of work, it also introduces new and quality approaches in performing the audit, which is evident from the considerable number of realized initiatives (Stevkovski, 2011, page 6).

1.1. Historical development of the State Audit of the Republic of Macedonia

The beginnings of the auditing institutions date back to 1945. The period after the World War II is marked with the emergence of the first audit institutions, which have undergone huge reforms leading up to the founding of the State Audit Office as a supreme audit institution. In the period between 1991 and 1998, state audit was organized as Directives for Economic-Financial Revision, as an integral part of the Office for Social Accounting, later known as Central Securities Depository. After the transformation of the Office for Social Accounting into Central Securities Depository in 1994, the auditing activities were performed by the Directives for Economic-Financial Revision till 31.01.1999, when the employees of the Directives for Economic-Financial Revision as part of the Central Securities Depository were transferred to the State Audit Office.² The first Law for State Audit was passed in 1997 (“Official Gazette of Republic of Macedonia” No.65/97).

¹ Retrieved from: <http://www.akademik.mk/document/drzhaven-zavod-za-revizija>.

² Retrieved from: <http://www.dzr.gov.mk/DesktopDefault.aspx?tabindex=0&tabid=1062>.

The basic rules and principles of performing state audit, as well as the organising it, and the State Audit Office competences are in accordance with the Law for State Audit (“Official Gazette of Republic of Macedonia” No.66/2010; 145/2010; 12/2014; 43/2014;) and the specific delegated legislation.

1.2.Competence of the State Audit

The State Audit Office, as a state institution, is a legal entity which performs state auditing. In accordance with the Law for State Audit, it is performed in compliance with the auditing standards of the International Organisation of Supreme Audit Institutions (INTOSAI) and the rules established by the INTOSAI Ethical Code, declared by the Minister of Finance in “Official Gazette of Republic of Macedonia”.

Grounded on the State Audit Law (“Official Gazette of Republic of Macedonia”, No.66 from 13.05.2010), state audit involves *“inspection into the documents, records and reports, the accounting and financial procedures, electronic and information systems, as well as other evidence of the correctness and objectivity of the financial situation, and the result of financial activities in accordance with the existing accounting rules, principles and standards; examining and evaluating the internal audit reports and public internal financial supervision, examining and evaluating the financial system management and supervision; examining the financial transactions which are public income and expenditures in the sense of lawful distribution of means; assessing the usage of means with reference to economical, efficiency and effectiveness aspects; assessing the subjects’ following the recommendations of the final audit report.”*

The above legal definition of the audit gives the framework of the State Audit Office’s activities, and it can be noticed that it is entitled to provide an assessment of the achieved economy, efficiency and effectiveness in the use of public finances. The State Audit Office also evaluates the

measures undertaken by the audit subjects to follow the given recommendations in the final audit report.

It can be concluded that this state institution has mainly an advisory role, because in the reports it gives assessment and further recommendations to the subjects of the audit, and the further activities depend on the decisions of the subjects of the audit. It should be the tendency of not only our country, but every country to strengthen the role and function, that is, the competences of the State Audit, in order that it grows into a decision making body of the use of budget finances. It is the only way to set the basis for responsibility on the part of every entity which is subject to audit, as well as the whole country.

The audit is, according to the law, conveyed by an authorized state auditor and state auditor, who are employed at the State Audit Office. The authorised state auditor is a certified expert for state auditing who also fulfils other legal requirements. In accordance with the State Audit Law, the entities which are subject to the state audit are: the Assembly of the Republic of Macedonia, the President of the Republic of Macedonia, the Budget of the Republic of Macedonia and the municipalities’ budgets, budget beneficiaries, individual beneficiaries, public institutions, trade companies in which the state is the dominant shareholder, agencies and other institutions set up by law, other institutions financed by public finances, the National Bank of the Republic of Macedonia, political parties financed by budget means, beneficiaries of the European Union funds (with exception to the system for implementation, management and supervision of the instrument for assistance for European Union Accession of Macedonia), and beneficiaries of financial means of international institutions.

State audit can also be undertaken on other subjects in connection with the entities subject to audit, who have economic, financial and other interest and are beneficiaries from the means for public expenditures.

We assert that state audit is under compulsion performed on the Budget of the Republic of Macedonia, the budgets and funds on a yearly basis, whereas for the remaining subjects, the audit is conveyed within the deadlines set in the State Audit Office programme.

The Assembly of the Republic of Macedonia proposes the persons in charge of management of the State Audit. It has the following competences: planning and performing auditing in accordance with the State Audit Programme, creating an annual audit report, submitting ongoing auditing reports with findings on irregularities: submitting quarterly reports about the indicators for supervision and assessment of the programme realization as part of the annual report.

After the auditing, the authorised state auditor is obliged to prepare a draft audit report and send it to the legal representative of the entity subject to auditing and the person in charge of the subject of the auditing during the period when the audit was performed. Within 30 days of the reception of the draft report, the persons in charge have the right to submit their comments to the State Audit. After this period, the authorised state auditor prepares the final audit report. Both reports, the draft and final, have to be signed at least by three auditors.

2. International auditing standards

It is a permanent tendency to harmonise the standards in every country, which leads to the creation of international standards accepted by many countries. The Code of Ethics of the International Organisation of Supreme Audit Institutions was issued by the Auditing Standard Committee at the XIX Congress of INTOSAI in 1998 in Montevideo, Uruguay (*Stevkovski, 2011, page 30*). These international audit standards proposed by INTOSAI have been accepted in the Republic of Macedonia, and are implemented in the work of the State Audit Office in the rulebook of standards of the state audit and international auditing standards of the International Federation of

Accountants (IFAC). With this step, Macedonia is among the countries which have begun the process of harmonization of the standards and procedures which are accepted worldwide, as well as establishing an auditing system compatible with the systems of the developed countries. The INTOSAI standards are a framework for establishing the local audit standards of the state audit, and are not opposed to the IFAC standards (*Stevkovski, 2011, page 30*).

2.1 INTOSAI standards

The auditing standards of the International Organisation of Supreme Audit Institutions (short INTOSAI) originate from the declaration in Lima and Tokyo, from the INTOSAI reports of various congresses, as well as from the Expert Group Report of the United Nations for Public Accounting and Audit in the developing countries. The INTOSAI standards consist of 4 (four) parts:

- Basic principles;
- General standards;
- Field standards;
- Reporting standards;

These standards provide the framework for the procedures and practices to be followed in the conduct of an audit. All the parts of the INTOSAI standards have a different structure. For instance, the first part involves: the applicability of the standards, objective assessment, public accountability, management accountability, standards description, standards consistency, internal audits, and access of data, auditing activities, improving techniques for auditing and interest conflict. The second part, General standards, involves: independency, competence, due attention and other general standards. Field standards refer to the planning, supervision and inspection, investigating and assessing the internal audit, correlation with law and regulations, auditing proof, report analysis (*Stevkovski, 2011, page 32*). The fourth part of the INTOSAI auditing standards involves the standards for informing procedures, such as: form (title, signature, date) and content (completion, address,

subject matter, legal framework, correlation of the standards with legal regulations). The International Organization of Supreme Audit Institutions was founded as an independent, autonomous and apolitical organization with the headquarters in Vienna. The State Audit Office of the Republic of Macedonia is an INTOSAI member since 29th April 2001.

The State Audit Office of Macedonia improves the international cooperation by participating in international organizations and institutions. It is a member of European Organization of Supreme Auditing Institutions EUROSAI from 2002. The INTOSAI organization for coordination of auditing activities of public expenditures is an independent association of the Supreme Audit Institutions (SAI). The aim is to promote efficient exchange of knowledge and experience from practice. INTOSAI headquarters are located in Vienna, and it is supported by the United Nations (Dragojevikj, 1993, page 21).

3. Analysis of the Annual Reports of the State Audit Office

The State Audit Office of Macedonia generates a report on the auditing and other activities on an annual basis. It submits the report to the Assembly of the Republic of Macedonia, at latest 30th June for the previous year. The Assembly analyses the report and brings conclusions.

3.1. Annual Report of the auditing and activities of the State Audit Office in 2013 and 2012

The Annual report of the State Audit Office summarizes all the results of the auditing activities completed throughout a year. The Annual Report for 2013 states the advancement of the State Audit Office has accomplished in completion of the project with collaboration of the Office of the Auditor General of Norway, aiming at improvement of the auditing efficacy and quality with the application of Audit Management System.

In accordance with this report, regulating statutory status of stateauditing and creating

an effective mechanism for analyzing the auditing reports in the Assembly of Republic of Macedonia according to the European experience will be the priority in the period following.³

According to the Annual Report for 2013 the employee structure involved in state auditing consisted of: 91 employees, authorized state auditors, state auditors and administrative support. They were organized in 7 sectors and 2 departments, out of which 3 sectors were directly involved in auditing activities (auditing sectors) and cover various sectors of the public sector, 1 sector for auditing improvement and supervision, 1 sector for auditing information systems and 2 sectors for administrative support. The organization is also comprised of 2 departments: human resources and internal auditing. Auditing was performed by 80 auditors, and 73 employees have a certificate for authorized state auditor. 96% of the employees are with higher education.

Compared to the Annual Report of the State Audit Office for 2012, which consisted of 92 employees, authorized state auditors, state auditors and administrative support, organized in 11 sectors and 2 departments. Seven sectors were directly involved in the auditing process (auditing sectors) and covered different areas from the public sector, 1 sector for auditing improvement and supervision, 1 sector for auditing of information systems and 2 sectors for administrative support. The organization also contained 2 departments for human resources and internal auditing. Auditing was performed by 75 auditors who had certificates for authorized state auditors.

We can conclude that there is an evident difference with reference to the structure of the employees, above all the number of sectors and the employees of the State Audit Office.

There are also evident differences in the budget of the State Audit Office in each

³ Retrieved from:
http://www.dzr.mk/Uploads/WEB_Godisen_izvestaj_DZR_2013.pdf.

year. The analysis of the auditing activities produced the following figures:

- 103 audits;
- 145 auditing reports for auditing regularities;
- 7 auditing reports for success audit;
- 170 revised subjects;
- 1146 findings in audit reports;
- 719 recommendations in the audit reports;
- 57 review of audit reports for executing the recommendations;
- 254 executed recommendations;
- 181.119 million denars revised public income;
- 63.170 million denars revised public expenditures;
- 155 audit reports submitted to the Assembly of Republic of Macedonia;
- 14 audit reports brought to the Public Prosecutions of Republic of Macedonia;
- 6 audit reports brought to the State Commission for Preventing Corruption of Republic of Macedonia;

The results from 2012 show that fewer audits have been performed, that is, totally 54 audits out of which:

- 36 audit reports for regularities;
- 10 audit reports for success audit;
- 8 thematic audits;
- 128 revised subjects;
- 93 findings in audit reports;
- 599 recommendations in the audit reports;
- 84 review of audit reports for executing the recommendations;
- 303 executed recommendations;
- 123.497 million denars revised public income;
- 38.376 million denars revised public expenditures;
- 793 audit findings;⁴

The State Audit Office defines the planned subjects and areas, that is, the issues that have to be revised the following year in

accordance with the criteria for choosing subjects and areas that will be revised on an annual level in the Annual Work Plan. Audit planning is in accordance with internationally accepted standards and auditing practices. The auditing plan includes the subjects which are to be compulsory revised by law.

In order to meet the aims, depending on whether an audit for regularity or success has been performed, the auditing activities in 2013 involved 170 subjects of auditing, whereas in 2012 the number of subjects of auditing was totally 128.

As an essential part of the system of supervision, state auditing aims at timely detecting deviations of the set standards and principles of law, efficacy, effective and economical use of public income in order to undertake particular measures and steps towards preventing the opposite in the future. The State Audit Office keeps track of the executions of recommendations given in the audit reports as part of regular auditing, special auditing and review of the executed recommendations, as well as aided by the information given by the subjects. According to the Annual Programme of 2013, the State Audit Office has given 719 recommendations before the Annual Report for 2013, for 297 recommendations the deadline for reporting on the undertaken measures had been met. From totally 422 recommendations whose deadline for feedback information had not been met, 254 have been completely or partially executed, that is, their execution is ongoing, 27 recommendations have not been executed (depending on other factors such as other organs or disagreements), 9 recommendations cannot be executed due to changed circumstances, and for 132 recommendations there has been no reply, that is, there is no feedback from the subject about their execution.⁵

Based on the analysis of the gathered data it can be concluded that from 422 recommendations for which the subjects

⁴ Retrieved from:
http://www.dzr.mk/Uploads/DZR_Godisen_izvestaj_2012%20reuced.pdf

⁵ Retrieved from:
http://www.dzr.mk/Uploads/WEB_Godisen_izvestaj_DZR_2013.pdf

were expected to take measures by the time the Annual Report was generated, 254 recommendations have been completely or partially executed, which represents a high level of execution of 60%. It is evident that there is a certain number of recommendations for which the subjects have not given feedback, which will be subject to further procedures of the State Audit Office. In order to provide permanent review of the execution of recommendations, the State Audit Office will continue applying different approaches for gathering information on the executed recommendations which includes the long-term recommendations, and a corresponding software for audit reports data analysis is in use. In 2013 the State Audit Office has performed auditing of the financial reports of 51 political parties and 43 final audit reports have been issued. Audit reports have not been issued for 8 political parties who have either been registered or erased in 2013.

With the auditing of the parties there have been established certain conditions which the organs of the parties were obliged to take measures for.

The priority of the State Audit Office for 2013, based on the results of their activities and their transparency, was informing the public on the use of public income. That leads to continuous announcement of the Final Audit Reports on the office's website, which is a vital part of the realization of "Annual Programme of the State Audit office for 2013."

CONCLUSION

It can be concluded that the State Audit Office of the Republic of Macedonia, as well as the auditors follow the trends of new practices and innovations in the work which contributes to more successful and more efficient performing of auditing. We can state that there is insufficiently and imprecisely determined competence of the State Audit Office which is regulated by legislative acts and regulations, that is, the advisory role of the State Audit Office. This

affects the increased number of cases where the responsibility by the auditing subject, as beneficiaries of the public income, is avoided, hence the responsibility towards the state is avoided as well. The auditing performed by the State Audit Office is a proof for correct, effective, efficient and economical acting of the subjects who are audited and presents the correct or incorrect distribution of budget means, and serves as a basis for measuring the state's responsibility in the distribution of budget means.

This paper contributes in the direction of providing a clear picture of the way the State Audit Office functions, what it represents, its role and importance. Through careful inspection of parts of the audit reports according to the Annual Programme for the State Audit Office in 2013 and 2013, and the extent of executing the recommendations in the financial acting of the auditing subjects, their systematization was enabled which brought to new awareness. Through following the acting in accordance with international standards and the European recommendations, we are heading towards improvement and better organization of this institution which represents a major factor in the state, and we are also a step forward towards the accession of our country to the European Union.

REFERENCE:

- *Annual Report on Audits and the operation of the State Audit Office in 2013.* Retrieved from: http://www.dzr.gov.mk/Uploads/WEB_Godisen_izvestaj_DZR_2013.pdf. Last visited: 15.01.2015;
- *Annual Report on Audits and the operation of the State Audit Office in 2012.* Retrieved from: http://www.dzr.gov.mk/Uploads/DZR_Godisen_izvestaj_2012%20reduced.pdf. Last visited: 15.01.2015;
- Blazevska, T. (2002). *State audit: nature and function, State Audit Office.* Skopje.
- Dragoevikj, D. (1993). *International standards for the audit of public expenditures.* Skopje.
- Jankulovska, C. (2011). *The relationship between internal and external audit in the public sector in the country.* University "St.. Cyril and Methodius", Economic Institute Skopje.

- Lee, T.A. “*The nature, scope and qualities of auditing*” in *Carsberg and Hope, Current issues in Auditing*, Philip Allan, 1984.
- Retrieved from: <http://www.akademik.mk/document/drzhaven-zavod-za-revizija>. Last visited:15.01.2015;
- Handbook for Internal Audit. Retrieved from: http://www.finance.gov.mk/files/u10/Priracnik_za_Revizija.pdf. Last visited:15.01.2015;
- Doc.dr.sc. Vukoja, B. *Revizija finansijskih izvestaja gospodarskih drustava*. Retrieved from: <http://www.revident.ba/public/files/revizija-financijskih-izvjestaja-gospodarskih-drustava.pdf>. Last visited: 15.01.2015;
- Stanoevski, S. (1998). *Control and audit*. Faculty of Economics, Skopje.
- *State Audit Act*, Official Gazette of Macedonia No. 66/2010; 145/2010; 43/2014.
- *State Audit Act* (out of use), Official Gazette of Macedonia No. 65/1997, 31/2003, 19/2004, 70/2006, 133/2007.
- State Audit Office. History. Retrieved from: <http://www.dzr.gov.mk/DesktopDefault.aspx?tabindex=0&tabid=1062>. Last visited:15.01.2015;
- Stevkovski, D. (2011). *State Audit Office as a controller of the spending budget funds Master's thesis*. St, Faculty of Law "Justinian I" – Skopje.

MACEDONIAN ADMINISTRATIVE JUDICIAL SYSTEM FOR SOLVING ADMINISTRATIVE DISPUTES COMPARABLE TO EUROPEAN SYSTEMS

Sladjana Eftimova, student of Policy and diplomacy of Faculty of Law “Goce Delchev” – Shtip,
second cycle of studies.

Abstract: The structure of the legal system, through history until today mostly depends on law and policy which is conducted by the country.

In European countries, there is position for historical and cultural conceptions for administrative judicature, differences and similarity that leave mark for solving administrative disputes.

The obligation – an internal judicial reform to be established in legal system, is conducted by each of the countries after the breaking down and division of Social Federative Republic of Yugoslavia or SFRY due to following the European law for constitution of legitimacy and constitutionality of acts as well as implementing of independent administrative judicature.

Analyze of the current condition regarding the independency and objectiveness of the judicature is necessary in our country and it is important to be seen how the conditions for working of the administrative judicature can be improved.

Key words: *judicial protection of the rights, models of administrative judicature, administrative judicial systems, reforms, law on administrative disputes, administrative court.*



1 Judicial protection of the rights

The conducted long-term activities of the research made for this master thesis depend of the following presented methods such as:

Historical or sociological method that I used to explain the social position of the administrative administration in economic standings for the period before and after the independence of Macedonia;

Legally – analytical, that provides explanation of what is object of studying of this thesis, more exactly estimation of the administrative – judicial control in administrative procedure;

and

Comparative method for studying of judicial procedure that was in competence of Supreme Court of the country as well as the procedure after the constitution of Administrative court comparable to the countries of Anglo-Saxon and European – continental model of administrative procedure.

Basic goal of this project is obtaining a result of how the judicial protection of the rights and interests of physical and legal entities is realized in administrative dispute in Republic of Macedonia.

The results of conducting the analyze of judicial protection of rights of parties in administrative-legal sphere shall depend on the activity of Administrative Court since its establishment to today and also from the

reports of the subjects that are solved and the subjects that are not solved.

Other goal is to find a way to exceed the practice of slow solving of administrative subjects into long, expensive and exhausting court procedures that used to be in competence of Supreme Court and to make comparing with European system for administrative procedure.

Such comparing shall depend on the importance of the subjects, competence on the judges and also the working terms in the Administrative court.

2 Models of administrative judicature

Third, most important goal is to answer the questions:

Which of the models of administrative judicature is compatible to our country?

Whether the Anglo-Saxon or European – continental model of organization of administration?

- First model dispose with competence for constituting of regular administrative judicature.

- Second model presents forming separate administrative judicature.

In Anglo-Saxon model the influence of the European – continental system is denied through eliminating of the system of legal law.

In European – continental model the interpretation of the court and application of the law is denied.

What presents characteristic for one model is default for other model and vice versa.

3 Administrative judicial systems

The division of the aforementioned systems has influence over the structure of administrative courts in European countries.

We shall take in consideration, England and France as countries representative of Anglo-Saxon model and Austria and Germany as representative of European – continental model of administrative judicature.

In selection of these areas we shall compare the administrative judicial systems and key criteria for solving administrative disputes.

More specifically, we shall pay attention to administrative-judicial procedure, court decisions, legal remedies as well as misdemeanor procedure.

Basis for all administrative procedure is Law on general administrative procedure of 1925 in Austria.

The acceptance of Australian Law by the public institutions and parties in administrative procedures is due to conduction for a period of more than 70 years.

Macedonia as an integral part of Yugoslavia in that period is fourth country in the world that accepted this Law.

In Austria, the system of administrative – legal protection and legal remedies is characterized with double administrative system.

On one side, the realizing of the legal protection upon appeal submitted to the Supreme Court or to Administrative court.

On the other side, objection for compensation provided via civil courts.

The administrative legal protection is realized in accordance to the Federal Constitution of Austria.

The administrative procedure is conducted in nine federal provinces on regional and municipal level in Austria in accordance to the Directives for legal remedies of European Union and in accordance to article six of the European convention for human rights.

I think that the administrative procedure in Austria creates legal clearance.

The legal protection is provided by independent Administrative court.

The Administrative court has legal competence to use the Directives for abolishing decisions regarding the contractual bodies and undertaking of temporary measures.

The judicial system for legal protection established with the federal Constitution of Austria is compound of independent administrative courts appointed for three year mandate with possibility of lifetime appointing and judges – jurors that are appointed according the same terms for certain period.

The decisions are adopted in courts that are called Senate and are consisting of one administrative judge and two judges – jury.

The administrative judicature in France and the method of organization of the administrative judicature in Macedonia present two different administrative systems.

In France there are more administrative courts of first instance and State council as second instance court and in Macedonia there is only one Administrative court for the whole territory.

In Macedonia the disputes between the regular courts and Administrative court are solved by the Supreme Court.

The Supreme Court is third instance judicial institution, unlike French Court that does not decides in third instance.

The Administrative procedure in France is “mainly positive” and is very alike the administrative procedure conducted in England.

The system of legal remedies and legal protection in France is based on independent judicial legal protection.

The characteristic in both case, for disputes that outcome of jurisdiction of administrative courts or under jurisdiction of regular civil courts, the damaged parties may start a procedure to obtain temporary measures by the judges.

Regarding the disposition of the contract and jurisdiction of the court, the requirement and assigning compensation is established with regular law according to Civil Code or with administrative precedent law.

It is necessary to submit previous formal objection to the competent body and the act or decision to be declared as illegal before compensation is awarded.

This is characteristic for France, country in which the criminal offenses are misdemeanors, unlike Germany in which the misdemeanors are administrative delicts.

The administrative procedure in Germany is considered as “balanced”.

In the Law on misdemeanors of 2006 there is reference provision according to which the misdemeanors institutions conduct the misdemeanor procedure in accordance to the provisions of the Law on general administrative procedure.

The acting of the administration and competence of the administrative bodies for conducting misdemeanor procedures and

pronunciation of the misdemeanor sanctions is characteristic of our legal system and also the administrative areas of some European countries where the administration is better solution in complexness of other courts.

In Macedonia, Anglo-Saxon model used to be applied, but, several years European-continental model for protection of human rights in administrative dispute is applicable.

The judicature in Macedonia is subjected to pressure.

The judges are not enough steady and persistent in definition for objectivity in proceeding and decision-making.

Realization of independent judicature, objectiveness and judge's responsibility depends on material security of courts and judges.

For achieving this goal it is necessary to approach toward establishing legal frame that would provide secure financial working of judicature institutions.

The independence of administrative judicature is understood as principle that is accepted in international frames for quick solving of administrative disputes.

Significant efforts for strengthening the quality of justice are necessary, to protect the mandate of judges and to keep their independence, as well as establishing better balance between disciplinary procedures and procedures for solving in practice.

Inefficiency of the administration is due to the large number of overdue and unsolved court subjects, postponing of court procedures and insufficient assets for covering the expenses.

Due to this, we cannot tell that we have efficient handling with administrative procedures.

4 Reforms

The goal which the Administrative court is formed in Republic of Macedonia and the terms under which the same is working although are improved regarding the spatial and technical condition for work and regarding the available human resources are still not satisfactory.

The number of accepted lawsuits is significantly larger than the number of refused lawsuits. The administrative body does not conduct the law properly, and the inappropriate level of technical equipment of Administrative court affects the current performance of legal responsibilities.

In the procedure in front of the court, separate physical or legal entities are making effort to secure their different interests such as speeding or postponing the administrative court procedures by affecting the court and the judge and there is the corruption.

It is necessary to review the possibility for modification and amendment of the Law on Judicial Council of Republic of Macedonia and also proposal for legal measure for citizens and legal entities that affect on the decision of the judges in administration subject or administrative dispute.

Major part of the petition submitted by the citizens and legal entities refer to disaffection of administrative judicial decision, and the other refer to technical defaults of the verdict.

According to article 39 paragraph 2 of the Law on administrative disputes the procedure upon the right of appeal against first instance verdict is not regulated.

In article 51 it is prescribed that if the Law in administrative disputes does not have provisions for the procedure upon exceptional legal remedy the Law on civil procedure shall be applied.

The Law on administrative disputes needs modification and amendment in order the terms for public of the court work to be regulated because the session that is conducted by the court is necessary for obtaining court decision.

It is also necessary a reform for solving temporary measures against the decisions of the Administrative court in order to be improved with measures accepted on European and International plan.

5 Law on administrative disputes

The Law on civil procedure procedure adopted before the Law on administrative disputes does not predicts the request for protection on legitimacy as exceptional legal remedy.

The legal gap that exists at the right of appeal in the Law on administrative disputes is identified by international experts.

In the Entry 4 item 4.2 of main priorities of approaching to European Union, it is predicted that steps need to be taken toward amendment of legislative frame for entering of the right of appeal in administrative subjects.

The Law on administrative disputes and the Law on civil procedure regulate the temporary measures at the same way and during the regulation it is not consider the specifics of the administrative disputes of the other court procedures.

The temporary measures in the Law on administrative disputes must be differently regulated from the temporary measures in civil procedure where private legal interest is solved in which the parties are in same position.

The procedure for temporary measures is not logic due to fact that upon appeal

against decision of the Administrative court for temporary measure the same court adopts decision.

From all this it appears that Administrative court should decide for the legitimacy of the acts adopted in misdemeanor procedure and to apply the provisions of the Law on criminal procedure.

Due to the inconsistency of the Law on administrative disputes, it is necessary by modification and amendment of the Law on administrative disputes to develop the procedure of the Administrative court regarding the misdemeanor.

In the Law on administrative disputes there are two exceptional legal remedies: repeating the procedure, elaborated from 43 to 48 article and legitimacy protection according to 49th article of the Law on administrative disputes.

This Law does not predict the terms and procedure in which can be submitted the request for protection of legitimacy and who is competent to decides upon such request.

6 Administrative court

The data for the activity of the Administrative court since its foundation until today show that this court does not overcome the flow of subjects and according to the Supreme court and Court Counsel of Macedonia, it is ineffective court.

The process is still ongoing and is upgraded due to the experiences of the previous practice in applying the legal standards, in order harmonization of domestic legislative with international standards in protection of the rights of citizens and legal entities in administrative procedure.

The judicial protection of the rights and interests of physical and legal entities in administrative dispute in Macedonia depends on additional strengthening of administrative judicature due to the irresponsible working of administrative system.

This analyze indicates the necessity of certain standards in the Law on administrative disputes to be amended in order to achieve improvement of judicial protection of the rights of citizens in their relations with public administration.

With Proposal of the Law for amendment and modification of the Law on administrative disputes it should be considered: public of the sessions, right of appeal against decisions adopted in administrative dispute, organizing the proceeding of the Administrative court according the legitimacy of the acts adopted in misdemeanor procedure, regulating the procedure for temporary measure and regulating the exceptional legal remedy for requiring protection of the legitimacy in administrative dispute.

Despite the undertaken activities in administrative legal regulative, this position and condition in the judicature is still not satisfactory, having in consideration the inefficiency in all court instances.

Conclusion

The closure contents results and defaults of the generality of research.

The protection and realizing the rights of the parties in administrative dispute cannot be wrong for other people's right or to be opposite to public interest.

The subjects that want their rights to be realized in front of court, should have equal legal protection but, disrespecting and not-conducting the administrative court

decision in Macedonia, presents breach of the primacy of the law.

The free access to court verdict is of great importance and would contribute to increasing of credibility of public in judicature.

Most important term for decreasing of corruption in judicature is its financial independency because the effectiveness and efficiency in deciding in administrative procedure are important for providing public servicers of whole society.

The European Commission admits and "welcomes" efforts undertaken in direction of decreasing the number of unsolved judicial subjects, which presents next step to conducting the judicial reforms.

By respecting the rights of one civil society there will be greater confidence in judicial administrative legal system for solving administrative disputes.

LITERATURE:

- ❖ Law on administrative disputes (Revised version)
- ❖ Law on modification and amendment of the Law on courts, Official Gazette of Republic of Macedonia, number 150 from 18.11.2010
- ❖ Law on courts (Revised version)
- ❖ Law on administrative inspection, Official Gazette of Republic of Macedonia, number 69, 2004
- ❖ Law on modification and amendment of the Law on court service, Official Gazette of Republic of Macedonia, number 150, Rulebook for systematization of working positions in Administrative court (Revised version), 2010
- ❖ Law on modification and amendment of the Law on General administrative procedure, Official Gazette of Republic of Macedonia, number 51 from 13.04.2011
- ❖ Law on courts 1995
- ❖ Law on courts 2006

- ❖ Law on administrative disputes, Official Gazette of Republic of Macedonia, number 62, 22 May 2006
- ❖ Law on free access to public information, 2006
- ❖ Application in article 242 paragraph 3 of the Law on modification and amendment of the Law on General administrative procedure, Skopje, November 2008
- ❖ Stenographic notes from Ninety-fifth session of the Assembly of Republic of Macedonia held on 10 of January 2008
- ❖ Draft strategy for the reform of public administration in republic of Macedonia (2010-2015, project financed by European union), December, 2010
- ❖ Official list of Social Federative Republic of Yugoslavia, number 47, 1986
- ❖ Court protection of human rights in administrative dispute, foundation Open society – Macedonia, Skopje, January 2012
- ❖ Official Gazette of Republic of Macedonia, number 62, 2006
- ❖ Annual report for the activity of Administrative court, 2009-2013
- ❖ DENKOVA Jadranka: Authorized lecturing Administrative process law
- ❖ KITEVSKI Kire: Manual for General administrative procedure, December 2007
- ❖ <http://www.pravdiko.mk/pravni-lekovi-vo-upravnata-postapka/>
- ❖ <http://www.ihr.org.mk/mk/praven-dijalog/praven-dijalog-br1/105-pravoto-na-zalba-vo-upraven-spor.html>
- ❖ <http://www.pravdiko.mk/?s=yupravna+postapka>
- ❖ <http://kurir.mk/makedonija/vesti/145280-So-noviot-Zakon-za-opsta-upravna-postapka-do-pokvalitetna-administracija>
- ❖ <http://www.akademik.mk/irena-brzanova-so-noviot-zoup-ke-se-zajakne-pravnata-zashtita-na-strankite-vo-upravnite-postapki>
- ❖ http://dzlp.mk/mk/upraven_sud
- ❖ http://www.uklo.edu.mk/files/attachments/Horizonti_MKD.pdf
- ❖ <http://www.finance.gov.mk/node/93>
- ❖ <http://lider.mk/2014/09/03/modernizirana-upravna-postapka-najavuvan-ivanovski/>
- ❖ <http://puls24.mk/makedonija/vesti/predlog-zakon-za-opsta-upravna-postapka>
- ❖ <http://telma.com.mk/vesti/8000-zhalbi-za-povreda-na-pravata-na-gragjanite>
- ❖ <http://www.utrinski.mk/?ItemID=4433A077FD6D3F4B98CB3BF1259A2E6C>
- ❖ <http://www.uskopje.mk>
- ❖ <http://www.pravdiko.mk/pravni-lekovi-vo-upravnata-postapka>
- ❖ http://dzlp.mk/mk/visUpraven_sud

CRIMES AGAINST OFFICIAL DUTY IN THE REPUBLIC OF MACEDONIA

Darko Majhosev

e-mail: darko-majhosev@hotmail.com

Abstract: The paper analyzes the legal provisions of the Criminal Code of the Republic of Macedonia relating to crimes against official duty. Crimes against official duty represent a group of criminal offenses that occupy a special place in criminal law. This kind of crimes is also called civil servants crimes, that is, they are defined as a violation of duty made by an official in performing his/her official duty.

In this paper we will analyze all articles of the Criminal Code that regulate the group of criminal offenses against official duty. Most frequent cases of misuse of official duty are cases of misuse of official position and authorization, unprincipled operation within the service, defraud in the service, receiving a bribe, giving a bribe, unlawful mediation, disclosing an official secret, falsifying an official document and other.

The paper will define the terms official and responsible person.

In the context of the paper we will show the research referring to the number of registered and accused of crimes against official duty in the Republic of Macedonia in the period from 2004 to 2013.

Key words: *official duty, misuse, accused persons.*

Introduction

Criminal law is divided into general and specific part. The provisions of the general part of criminal law determine general conditions for the application of sanctions for all crimes, and a separate part determines the conditions for the application of specific penal sanctions for certain crimes. The special part can be defined as the sum or system of legal provisions for crimes and penalties for them.

Between the general and the special part of criminal law there is some correlation. The relationship between the general and the

special part of the criminal law are interconnected and conditioned, i.e. their provisions are mutually complementary and their linking determines whether a person can be punished and what criminal sanctions can be imposed.

The subject of the special part of the criminal law is the determination of which human acts will be prescribed as offenses and of the shape and scope of punishment for the perpetrators.

Any crime has its limits which must be accurately defined, i.e. it should be determined which conduct it covers and which value. This implies that for each punishable act its constituent features must be precisely determined.

The provisions of the separate part have a strictly defined form and content, that is, they contain two elements: disposition and sanction. Disposition is a part of the legal provision which stipulates which conduct is prohibited, while sanctions as part of the provision represent an institutionalized form of state repression for the violation of the norm.¹ The prescribed sanctions determine the limit (from one to five years in prison), mark the lower limit (at least four years in prison) or alternatively (imprisonment from six months to one year) and cumulatively a fine. Such a manner of prescribing penalties arises from one of the fundamental principles of criminal law, and that is individuation (subjectivization) of the sentence, which means sentencing

¹ Vitlarov, T., *Criminal Law-separate part (authorized lectures)*, University "Goce Delcev" Stip, Faculty of Law, Kocani, 2008, p. 5.

according to the maxim: *it is not the act that is punished but the offender.*²

The Criminal Code of the Republic of Macedonia (Official Gazette no.37/96) processes crimes against official duty in Chapter XXX, which comprises fifteen articles, more precisely from article 353 to article 362.

Crimes against official duty represent a group of crimes that occupy a special place in criminal law. This kind of crimes are also called civil servants crimes, i.e. they are defined as a violation of official duty made by an official during performing his/her official duty. The crimes of misuse of official duty are acts of misuse of power, of official position and authorization, of using official position for various inadmissible acts contrary to the public-legal character of the service.

The Criminal Code of the Republic of Macedonia contains several crimes related to misuse of official position and authority committed out of greed that might come under the term corruption in a wider sense of the word.³ Crimes relating to active and passive bribery are considered corruption in a narrow sense of the word.

Concept of an official person

With the amendments of the Criminal Code of 2004 (Official Gazette of RM no. 19/04) a new formulation of the concept of official and responsible person was given. Thus, article 122 paragraph 4 stipulates what constitutes an official, paragraph 5 stipulates what a foreign official is, and paragraph 7 of the same article stipulates the term responsible person.

An official person, when marked as a perpetrator of a crime, is considered to be: The President of the Republic of Macedonia, the appointed Ambassadors and other representatives of the Republic of Macedonia abroad and also appointed persons by the President of the Republic of Macedonia, elected or appointed official in and by the Parliament of the Republic of Macedonia, in the Government of the Republic of Macedonia, in the State administration, courts, the Public Prosecution Office, The Judicial Council of the republic of Macedonia, the Council of Public prosecutors of the Republic of Macedonia, and other bodies and organizations conducting professional, administrative and other activities within the rights and duties of the Republic, in the local self-government units, as well as persons who permanently or temporarily conduct official duty in these bodies and organizations, civil servants performing expert, normative-legal, executive, administrative-supervisory works and administrative works in accordance with the Constitution and the law, an authorized person within a legal entity which by law or by some other enacted regulation based on the law is entrusted with performing public authority, when the performed the duty fall within the framework of that authority a person performing certain official duties, based on the authorization given by law or by some other enacted regulations based on the law. a military person, when considering crimes in which an official person is pointed out as the perpetrator; and a representative of a foreign country or an international organization in the Republic of Macedonia.

Concept of a responsible person

The definition of a responsible person is given in article 122 paragraph 7 of the Criminal Code according to which a responsible person within a legal entity shall be considered to be a person within the legal entity, who considering his/her function or based on special authorization

² Kambovski, V., *Criminal Law (general part)*, Third revised edition, Skopje, 2006, p. 175.

³ Criminal acts that might be comprised by the term corruption in a wider sense include: Misuse of official position and authorization (Art. 353); Unlawful mediation (369); Disclosing an official secret (353-c); **Unprincipled operation within the service**(359-a); Illicit enrichment and concealment of property (359-a).

in the legal entity, is entrusted with a certain circle of matters which concern the execution of legal regulations, or regulations that are enacted on the basis on a law or a general act of the legal entity, in the management, use and disposition of property, the management of the production or some other economic process, or the supervision over them.

A legal entity shall mean: the Republic of Macedonia, units of local self-government (municipalities), the city of Skopje as a separate unit of local self-government, political parties, companies in all forms (public company, limited partnership, limited liability partnership, joint stockholding company, and limited partnership with shares), institutions, funds, financial organizations (banks), and other organizations specified by law, which are registered as legal entities, and other communities and organizations to which the property of a legal entity has been recognized.

Definition of official duty

Crimes against official duty (civil servants crime) can be defined as violations of official duty performed by an official in conducting his/her official duty.⁴The very notion of official duty means a duty towards someone that comes from performing one's duty in public-legal sphere, i.e. which is closely related to the conduct of official duties. Government by definition is limited, but in its power it is unlimited. Therefore, there is a need to limit the powers of the holders of government functions, that is, they should be put into solid frames in order to achieve the rule of law. Abuse of power in any system is closely linked to the functioning of the legal state and the legal system. If we have a state with a strong rule of law, then the area of abuse of power is very small. The object of protection is legal, conscientious and proper

conduct of officials in the performance of their official duties.

According to the classical concept of these crimes, the perpetrators of these acts are officials. With the evolution of the notion of an official, it expands on responsible persons and persons exercising public powers. The Criminal Code of the Republic of Macedonia in art. 122 specifically defines the terms official⁵, responsible⁶ and person performing activities of public interest⁷, as perpetrators of crimes against official duty. These punishable acts by their subjective side are premeditated. The special subjective element of unlawfulness in most of these crimes is the intention to obtain some benefit or cause damage to another person. This subjective element is of particular importance in practice to distinguish these crimes from disciplinary violations while performing official duties. Usually these acts are misuse of power, of official position or of authority, of use of official position for performing various inadmissible activities⁸. Such

⁵ Pursuant to article 122 paragraph 4 of the Criminal Code of the Republic of Macedonia an official person, when marked as a perpetrator of a crime, is considered to be: The President of the Republic of Macedonia, the appointed Ambassadors and other representatives of the Republic of Macedonia abroad and also appointed persons by the President of the Republic of Macedonia, elected or appointed official in and by the Parliament of the Republic of Macedonia, in the Government of the Republic of Macedonia, in the State administration, in courts and other bodies and organizations conducting professional, administrative and other activities within the rights and duties of the Republic, in the local self-government units, as well as persons who permanently or temporarily conduct official duty in these bodies and organizations.

⁶ Pursuant to article 122 paragraph 7a responsible person within a legal entity shall be considered to be a person within the legal entity, who considering his/her function, is entrusted with a certain authorization in the management, use and disposition of property, with the management of the production process, etc.

⁷ Pursuant to article 122 paragraph 9 of the Criminal Code of RMa person performing work of public interests shall be considered to be the person who performs functions, duties or works of public or general interest, such as: teacher, tutor, physician, social worker, journalist, notary, lawyer, or any other person who performs these works independently or within a legal entity which performs activities of public interest, or general interest, in accordance with the law.

⁸ Vitlarov, T., *Repression and Prevention of Corruption*, 2nd August, Stip, 2006, p. 306.

⁴ Ibid., p. 75.

incriminating actions should not be tolerated because this erodes the legal system, the functioning of the legal state and the rule of law in the country. Corrupt administration is a major social evil because it violates the rights of citizens and inflicts enormous damage on the social community. It weakens the legal system and the rule of law, undermines the reputation and credibility of the government, it loses the trust of citizens and causes general discontent with the justice system. The interest of the state is that these services function properly in order not to put into question the confidence in the legitimacy of their work.

Crimes against official duty

The Criminal Code of the Republic of Macedonia (Official Gazette No.37 / 96, 4/2002, no. 43/2003, no. 19/2004, no. 81/2005, no. 60/06, 73/06, 7/2008); crimes against official duty are processed in Chapter XXX, which comprises fifteen articles, more specifically from article 353 to 362.

Pursuant to the provisions of The Criminal Code criminal acts against official duty are: Misuse of official position and authorization (art. 353); Violation of the guarding of the border (353-a); Non-execution of an order (art. 353-b); Unprincipled operation within the service (art. 353-c); Embezzlement in the service (art. 354); Defraud in the service (art. 355); Helping oneself in the service (art. 356); Receiving a bribe (art. 357); Giving a bribe (art. 358); Unlawful mediation (art. 359); Illicit enrichment and concealment of property (art. 359-a); Disclosing an official secret (art. 360); Misuse of state, official or military secret (art. 360-a); Falsifying an official document (art. 361), and Unlawful collection and payment (art. 362).

Apart from the legal aspect all of the above crimes will be analyzed in terms of

registered and persons accused of crimes against official duty.

Misuse of official position and authorization (art. 353)

This crime is characterized by unlawful exercise of rights and obligations arising from the official position and authority of the official. The word misuse means that by using his official position or authorization, by exceeding the limits of his official authorization, or by not performing his official duty, he acquires for himself or for another some kind of benefit, or causes damage to another.

Every crime has its own action which is used to commit a crime, so the act of using this crime is when an official has broad authorization to assess the appropriateness of an act and based on it to make specific decisions (adoption of administrative acts concerning giving various approvals for construction of facilities, for opening catering or trading facilities).

Exceeding the limits of his official authorization exists when an official performs official actions outside of his official powers, and thus with this conduct itself, when it is established that the official acted beyond his powers or took certain actions which are not within his jurisdiction, or took actions but did not acquire approval from his supervisor when such approval was necessary, and it shall be qualified as misuse of official powers. Failure to perform official duty is reflected in such a way that the official who has the authority does not take or omits official action that is within his official authority, so any authorization, exceeding and failure to perform official duty, does not necessarily represent a crime – in order for a crime to exist it must have a consequence, and that is to acquire some benefit for himself or for another or cause damage to another.

The consequence of this crime can be seen as damage inflicted on a natural or legal person, group, citizens, state etc.

In the criminal-legal sense, the term some benefit means property and non-property gain. Material gain is understood to be any increase or improvement of one's or another's property, or prevention of reduction of such property or its value⁹. Another gain, as a rule non-property, is the creation of any favorable position or convenience for one person in any sphere of social life. Classic corruption offenses that are closely related to the misuse of official position are: Misuse of official position and authorization, Unlawful mediation, Unprincipled operation within the service, and Illicit enrichment and concealment of property.

Misuse of official position in terms of this incrimination occurs in three forms:

- a. Using his official position or authorization by an official
- b. Exceeding the limits of his official authorization or
- c. Not performing his official duty

a) Using his official position

This kind of misuse is most prevalent in relation to discretionary acts. This type of misuse most often occurs when the official has broad powers. This type of crime in practice usually occurs when making various administrative acts with discretionary powers of officials.

b) Exceeding the limits of his official authorization

This kind of exceeding exists when the official person performs official actions which are outside of his official powers.

This kind of crime consists of making laws that are the responsibility of another official and enacted so such an act is illegal because

with the adoption of such an act by an official who is not competent to make laws in performing his official position, some of the regulations that define the jurisdiction of the activity of a certain official are violated.

c) Not performing his official duty

This crime consists in inaction or failure to take an official action which is within the official powers of the official.

This type of crime occurs when an official did not bring an act which he was obliged to bring (when he refuses to issue to a citizen a required certificate) or formal dereliction of official duty.

Not all derelictions of official duty constitute a crime, it does not mean that it is a crime; dereliction of official duty is a misuse only when the perpetrator (the official) does not comply with his duties laid down in the law or in other regulations, and there must be a consequence which is acquiring some benefit for himself or causing harm to another.

Perpetrators of crimes

This type of crime is classified into the group of *delicta propria*, and the perpetrators of this crime are: official, responsible person in a foreign legal entity having a representative office or carrying out business in the Republic of Macedonia or a person performing activities of public interest, if the crime is committed within the performance of his special authorization or duty.

Subjective element

The crime of misuse of official position and authority is premeditated. The perpetrator of this crime is aware that he used his official position and authority, that he exceeded the limits of official authority or did not perform his official duty.

⁹ Vitlarov, T., *Criminal Law-separate part (authorized lectures)*, University "Goce Delcev" Stip, Faculty of Law, Kocani, 2008, p. 77.

There are qualified types of The crime Misuse of official position and authority from art. 353 of the Criminal Code:

- If the perpetrator of the crime acquires a larger property gain, or causes a larger property damage, or violates the rights of another more severely.

This type of crime is best described in article 122 item 21 of the Criminal Code (with amendments from 1999) and it prescribes the amount of 5 average monthly salaries in the economy at the time when crime was committed.

Qualified as a kind of the main act is also the case of "a serious violation of the rights of another person," and this legal formulation of the crime does not define the meaning of more or less serious violation of the rights of another person.

Thus it is considered that the *raisonne legerenda* the formulation of such a crime should be omitted.

- Another qualified form for this kind of crime is when the perpetrator acquires substantial property gain or inflicts significant damage.

Substantial gain for this type of crime pursuant to article 122 item 22 of the Criminal Code, the damage acquired should amount 50 average monthly salaries in the economy at the time of committing the crime.

In the amendments to the Criminal Code of 2004, art.353 is supplemented with a new paragraph (par. 5) which stipulates imprisonment of at least five years for the crime performed during execution of public purchases or causing damage to the finances of the Budget of the Republic of Macedonia, public funds or other state owned finances.

Violation of the guarding of the border(art.353-a)

The highest honor and duty of every citizen is the defense of the country or to safeguard the independence, territorial integrity and sovereignty of the state in which he lives and does business. Guarding the state border has been elevated to the level of the most responsible duty of every citizen, especially the officials who perform the service on the border who have the obligation to protect the state border.¹⁰The legislator devoted significant space in the Criminal Code of the Republic of Macedonia to the misuse of official duty for violation of the guarding of the border. This crime is indirectly related to the obligation of every citizen concerning the defense of the Republic of Macedonia.

Article 353 paragraph 1 of the Criminal Code of the Republic of Macedonia stipulates that: "an official person who will act against the regulations for guarding of the state border during performing duty on the border, and as a result of that severe harmful effects for the authority can occur or the authority is severely damaged, shall be sentenced with imprisonment of three months to three years.

Paragraph 2 of this type of crime stipulates a crime by which if severe body injury or material damage of large scale or other severe consequences occurred, the perpetrator shall be sentenced with imprisonment of six months to five years.

There are also qualified types of crime so paragraph 3 of this type of crime stipulates that if death of a person occurs as a result of the crime stipulated in paragraph 1, the perpetrator shall be sentenced with imprisonment of one to ten years.

Paragraph 1 for this type of crime stipulates that if the crime stipulated in paragraph 1 is performed due to negligence, the

¹⁰ See art. 353-a of the Criminal Code of the Republic of Macedonia

perpetrator shall be sentenced with a fine or imprisonment up to one year.

If a consequence stipulated in the paragraph 2 occurs due to the crime stipulated in paragraph 4, the perpetrator shall be sentenced with a fine or imprisonment up to three years, and if a consequence stipulated in paragraph 3 occurs, the perpetrator shall be sentenced with imprisonment of one to five years.

Non-execution of an order (art. 353-6)

Before we go on to the explanation of the crime of non-execution of an order we will give a definition of an order. Order is a term for a general and individual act that is issued in the process of implementing the law or other regulation. The order orders or prohibits a certain procedure in a particular situation¹¹. Orders as a general legal act can be adopted only by organs if they have the authorization of authorities by law or other regulation for its adoption (publication). Order as a form of decision is often made by organs in the armed forces and the police, that is, in those bodies that operate on the principle of subordination.

This crime is stipulated in art. 353-b of the Criminal Code of the Republic of Macedonia, and it stipulates that an official person who, during the execution of the duty regarding prevention and investigation of crimes, finding the stipulators of crimes or maintaining the public order, peace and safety of the country, does not execute or refuses to execute order of a superior to take an official action and as a result of that severe breach of the rights of other, severe disturbance of the public order and peace or greater material damage occur, shall be sentenced with imprisonment of three months to three years.

Paragraph 2 of this article stipulates that an official person who will not execute the superior's order stipulated in paragraph 1

due to negligence, shall be sentenced with a fine or imprisonment up to one year.

Paragraph 3 of Article 353-b of the Criminal Code of the Republic of Macedonia stipulates that it is not a crime if the official person refuses to execute an illegal order by a superior.

Unprincipled operation within the service (art. 353-b)

Article 353-c paragraph 1 stipulates that if an official person or authorized person in public enterprise or public institution who, through breach of the legal regulations for conflict of interest or for principled action during performing discretion authority, with omission of relevant monitoring or in other way obviously incorrectly acts in performing of his/her authorities and as a result of that will obtain some benefit for himself/herself or for other person or will cause damage to somebody, shall be sentenced with imprisonment of three months to three years.

Paragraph 2 of this article stipulates that if the perpetrator of the crime stipulated in paragraph 1 obtains greater material gain or causes greater material damage or severely violates the rights of other, he shall be sentenced with imprisonment of six months to five years.

This crime has a qualified form which is provided for in paragraph 3, so if the perpetrator of the crime stipulated in paragraph 1 obtains significant material gain or causes significant material damage, he shall be sentenced with imprisonment of one to ten years.

Paragraph 4 provides that the sentence for this crime shall be imposed on the responsible person, responsible person in a foreign legal entity which has a representation office in the Republic of Macedonia, or a person that performs activity of public interest, if the crime is performed during his/her special authority or duty, determined by the law.

¹¹ Political Encyclopedia, Savremena administracija, Belgrade, 1975, p. 612.

Embezzlement in the service(art. 354)

Embezzlement in the service is performed by an official person who, with the intention of acquiring unlawful property gain for himself or for another, usurps money, securities or other movable objects that are entrusted in the service, he shall be punished with imprisonment of six months to five years.

If the perpetrator of such a crime acquires a larger property gain, he shall be punished with imprisonment of one to ten years.

The Code also stipulates a qualified attempt for this criminal act so if the perpetrator of the crime acquires a significant property gain, he shall be punished with imprisonment of at least four years.

If the perpetrator of the crime from paragraph 1 acquires a small property gain, and if he wanted to acquire such a property gain, he shall be punished with a fine or with imprisonment of up to one year.

The Law on Amendments to the Criminal Code of the Republic of Macedonia adds another paragraph to Article 102, paragraph 5, which reads:“The sentence referred to in paragraphs (1), (2) and (3) of this article shall be applied for a responsible person, responsible person in foreign legal entity with representative office in the Republic of Macedonia or a person performing activities of public interest, if the crime has been committed during the performance of the person’s special authorization or duty, as determined by law“.

Defraud in the service(art. 355)

This article stipulates that an official person who, when performing his service, with the intention to acquire an unlawful property gain for himself or for another, by submitting false invoices or in some other way, deceives the authorized person to effect an unlawful payment, shall be punished with imprisonment of six months to five years.

If with the crime from paragraph 1 a larger property gain was acquired, the offender shall be punished with imprisonment of one to ten years.

If with this crime a significant property gain was acquired, the offender shall be punished with imprisonment of at least three years; also if this crime was committed by a responsible person, responsible person in a foreign legal entity having a representative office in the Republic of Macedonia, or a person performing activities of public interest or if the offense is committed during the performance of his special authorization or duty.

Helping oneself in the service(art. 356)

An official person who without authorization helps himself to money, securities or other movable objects entrusted in the service, or gives these objects without authorization to another to help himself, shall be punished with imprisonment of three months to five years.

Receiving a bribe(art. 357)

An official person who asks or accepts a gift or other benefit or accepts a promise for a gift or other benefit for himself/herself or for another person so as to perform within his/her official authorization an official activity which must not be performed or to fail to perform an official activity which must be performed, shall be sentenced to imprisonment of four to ten years.

An official person who asks or accepts a gift or other benefit or accepts a promise for a gift or other benefit so as to perform within his/her official authorization an official activity which must be performed, or not to perform an official activity which must not be performed, shall be sentenced to imprisonment of one to five years.

An official person who, after the official act listed in the mentioned paragraphs(1 and

2) of this article is committed or not committed, requests or receives a present or some other benefit in connection with this, shall be punished with imprisonment of three months to three years.

The sentence referred to in paragraphs (1), (2) and (3) of this article shall be also applied to the responsible person who performs activities of public interest, if the act is performed in connection with acquisition, exercise or revocation rights established by law or in order to obtain an advantage or cause damage to another person, to the responsible person in a foreign legal entity who commits the crime to the detriment of the Republic of Macedonia, its citizen or legal person.

The received present or acquired property gain shall be confiscated.

Giving a bribe (art. 358)

A person who gives or promises a gift or other benefit to an official person so that the latter would perform within his/her official authorization an official activity which must not be performed or would not perform an official activity which must be performed, or a person who acts as an intermediary in such process, shall be sentenced to imprisonment of one to five years.

A person who directly or indirectly gives or promises a gift or other benefit to an official person so that the latter would perform within his/her official authorization an official activity which must be performed or would not perform an official activity which must not be performed, or a person who acts as an intermediary in such a process, shall be sentenced with imprisonment of up to three years.

The offender from paragraphs 1 and 2 who gave a bribe upon the request from the official person, and who reports this before he finds out that the crime was discovered, shall be acquitted from punishment.

The given present or property gain shall be confiscated, and in the case of paragraph 3, they shall be returned to the person who gave the bribe.

Unlawful mediation (art. 359)

A person who receives a reward or some other benefit by using his official or social position and influence, in order to mediate for some official act to be executed or not, shall be punished with a fine, or with imprisonment of up to three years.

A person who, by using his official or social position or influence, mediates for the performing of an official act which should not be performed, or not to perform an official act which otherwise should be performed, shall be punished with imprisonment of six months to five years.

A person who, by using his official or other, position, general reputation or influence, for reward or other material benefit mediate at person in charge, responsible person in foreign legal entity who is performing activity in Republic of Macedonia, or a person who is performing acts from public interest performs or do not performs act which is in contrary to his duty or at foreign legal entity performs or do not performs act which is in contrary to his duty or citizen or legal entity, shall be punished with fine or imprisonment up to one year. If this act has a consequence unlawful obtaining or losing rights, obtaining greater property gain or making greater damage to another person, domestic or foreign legal entity, the perpetrator shall be punished with imprisonment from three months to three years.

If a reward or some other benefit was received for the mediation from paragraphs 2 and 3, the offender shall be punished with imprisonment of one to ten years.

Illicit enrichment and concealment of property(art. 359-a)

For this crime an official person or responsible person in a public enterprise or in a public institution who acts contrary to the legal obligation to report property status, provides false information about his/her income, or when it is established that his/her property significantly exceeds his/her legal and reported income for taxation and he/she conceals the real sources of the property, shall be sentenced to imprisonment of six months to five years and with a fine.

Paragraph 2 of this article stipulates that persons whose property significantly exceeds the incomes that he/she obtains and the reported income for taxation for which the perpetrator concealed the real sources shall be confiscated, and if confiscation is not possible, then other property of the perpetrator of equivalent value shall be confiscated. Property can also be confiscated from third persons on whom it is transferred without adequate compensation.

Disclosing an official secret(art. 360)

A person who tells, transmits, or in some other manner makes available information which represents an official secret to the public or to an unauthorized person, or acquires such information with the intention to tell or hand it over to the public or to an unauthorized person, shall be punished with imprisonment of three months to five years.

If the crime was committed out of self-interest, or for the use of the information abroad, the perpetrator shall be punished with imprisonment of at least one year.

Paragraph 3 for this crime stipulates that if the crime from paragraph 1 was committed out of negligence, the perpetrator shall be punished with a fine, or with imprisonment of up to three years.

Paragraph 4 of this article stipulates that an official secret is considered to be information or documents which by law, by some other regulation or by decision of a competent authority are passed, and based on law, have been declared to be an official secret, and whose disclosure has or could have damaging consequences for the service.

Misuse of state, official or military secret (art. 360-a)

For this crime an official person who will use certain data that are state, official or military secret in order to obtain for himself or for another some kind of benefit or cause damage to another person, shall be punished with imprisonment of three months to five years.

The sentence stipulated in paragraph 1 shall be imposed to one that, after the cease of the service, with the intention to use such data or tell, give or make them available to other person to use.

Falsifying an official document(art. 361)

An official person who in an official document, book, or paper, enters untruthful information, or does not enter some important data, or with his signature, respectively with an official stamp, verifies an official document, book or paper with untruthful contents, or with his signature, respectively an official stamp, enables the making of an official document, book or paper with untruthful contents, shall be punished with imprisonment of three months to five years.

Paragraph 2 stipulates that the punishment from paragraph 1 shall apply also to an official person who uses the documents from that paragraph in the service as if they were real, or destroys them, hides them, or damages them to a larger extent or in some other way makes them useless.

A responsible person in a legal entity that disposes with state or social property, who commits the crimes from paragraphs 1 and

2, shall be punished with the punishment that is prescribed for those crimes

Unlawful collection and payment(art. 362)

This crime is the last of the crimes which constitute Chapter XXX concerning the Crimes against official duty. Article 362 stipulates that an official person or a responsible person who disposes over state or social property, who collects an amount from another which this person is not obliged to pay, or collects more than this person is obliged to pay, or who during pay out or handing over of objects, pays out or

hands over less than he was obliged to do, shall be punished with a fine, or with imprisonment of up to three years.

Research

In order to have a better idea of the crimes against official duty in Macedonia, we carried out a small survey on the number of reported and convicted adult persons for criminal acts from 2004 to 2013.

In our survey we used the method of content analysis of publications issued by the State Statistical Office of the Republic of Macedonia in the period 2004-2013.

Table 1. Reported and convicted adults for all types of crimes in the Republic of Macedonia for the period 2004-2013

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Total reported crimes | 22.591 | 23.814 | 23.514 | 23.305 | 26.409 | 30.404 | 30.004 | 31.284 | 31.860 | 34.436 |
| Total convicted for all types of crime | 9.916 | 10.639 | 11.317 | 11.648 | 11.310 | 11.905 | 11.239 | 12.219 | 11.311 | 12.297 |

Table 2: Reported adults and adults convicted of crimes of misuse of official position in the Republic of Macedonia for the period 2004-2013

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|------|------|------|------|-------|-------|-------|------|------|------|
| Reported adult for Crimes against official duty | 846 | 957 | 773 | 930 | 1.112 | 1.061 | 1.067 | 825 | 843 | 927 |
| Convicted adult perpetrators for Crimes against official duty | 185 | 238 | 236 | 256 | 291 | 343 | 262 | 365 | 317 | 247 |

The conclusion of this paper will be drawn from the data obtained from the survey presented in tables. From Tables no. 1 and 2 we can conclude that in RM the number of reported and convicted persons for all types of criminal offenses continued to grow (with a small exception) and in 2013 the number of reported or convicted persons amounted to 34,436, or 12,297 persons.

In addition, from the tables we can conclude that the number of reported and convicted persons for criminal acts misuse of official duty in the period 2004-2013 continually grew, and that in 2012 and 2013 began the tendency of falling. From the survey we have no indications of to what such a falling tendency is owed in the number of reports and sentencing for the group of criminal offenses against misuse of official duty in the Republic of Macedonia.

References

1. Bacic-Separovic, Criminal Law (separate part), Zagreb, 1992;
2. Kambovski, V., Criminal Law (general part), Third revised edition, Skopje, 2006;
3. Kambovski, V., Criminal Law (separate part), Prosvetnodelo, 2003;
4. G. Kajzer, Criminology, Alexandria, Skopje, 2006;
5. J. Tahović, Criminal Law-separate part, Belgrade, 1953;
6. Criminal-legal reform faced with challenges of the 21st century, Skopje, 2002;
7. Lj. Lazarević, Criminal Law-separate part, Savremena administracija, Belgrade, 1983;
8. Political Encyclopedia, Savremena administracija, Belgrade, 1975, 1975;
9. Vitlarov, T., *Repression and Prevention of Corruption*, 2nd Avgust, Stip, 2006;
10. Vitlarov, T., Criminal Law-separate part (authorized lectures), University "Goce Delcev" Stip, Faculty of Law, Kocani, 2008;
11. M. Babik and I. Markovik, Criminal Law-separate part, Banja Luka, 2007;
12. F. Bacik, Criminal Law-separate part, Skopje, 1973;

Laws

- Criminal Code of RM, COfficial Gazette of RM no. 37/96;
The Law on Changes and Amendments to the Criminal Code, Official Gazette of RM no. 80/99, Official Gazette of RM no. 4/2002, no. 43/2003, no. 19/2004, no. 81/2005, no. 60/06, 73/06, 7/2008;
Law on the Prevention of Corruption (Official Gazette of RM no. 28/02);
The Law on Changes and Amendments to the Law on the Prevention of Corruption (Official Gazette of RM no. 46/04);
Statistical Review no. 2.4.14.11 (789), State Statistical Office, Skopje, 2013;
Statistical Review no. 2.4.13.11 (754), State Statistical office, Skopje, 2012;
Statistical Review no. 2.4.12.09 (724), State Statistical Office, Skopje 2011;
Statistical Review no. 2.4.11.15 (698), State Statistical Office, Skopje, 2010;
Statistical Review no. 2.4.10.12 (665), State Statistical Office, Skopje, 2009;
Statistical Review no. 2.4.9.11(631), State Statistical Office, Skopje, 2008;
Statistical Review no. 2.4.8.07 (594), State Statistical Office, Skopje, 2007;

CRIMINAL PROCEEDINGS AGAINST CHILD

Marija Jovanova

Abstract: Juvenile criminal law is part of the criminal law of a country, it is set of rules and regulations governing the rights and obligations of the minors concerned. Criminal proceedings against a child will raise if there is a crime which has been committed by the child when the child or minor may be answerable for the deed pursuant to justice for children. When it comes to criminal proceedings against a child that is significantly different from the procedure against adult offenders because here we have a special category of people who still do not have sufficient mental maturity and procedures that would guide could have negative consequences child. What characterizes proceedings against a child is that the main emphasis is on offense but the offender. Another feature of the criminal proceedings against children that have some direct criminal proceeding in the direction of an alternative procedure, for example in front of Social Work or a procedure in which a whole would raise concerns about the child's personality, there are numerous variations and entire procedure is conducted in the best interest of the child.

Key word: child, crime, criminal procedure and responsibility.

1.Features criminal proceedings against a child

Criminal proceedings against children is a special kind of criminal procedure, which differs from the adult criminal proceedings against offenders. In R. Macedonia criminal proceedings against children is conducted pursuant to the Law on Justice for Children, the constitution of the Republic Macedonia and a number of laws, conventions, declarations, recommendations and other miscellaneous documents adopted by the legislature of the Republic Macedonia, UN, Council of Europe and the EU, which are related to the protection and respect for the rights of children in the system of justice for children and are especially important for persons responsible for implementing juvenile justice, particularly in terms of improving the situation of children who

have come into conflict with the law. When it comes to the procedure, all subjects in the criminal proceedings should be reserved to the principles laid down by the law for righteousness to children. The principles are anticipate that:

- (1) In proceedings in child official language is Macedonian language and its Cyrillic alphabet.
- (2) The provisions of the law on the use of language that is spoken by 20% of citizens in the Republic of Macedonia and the local government units are properly applied in the proceedings with a child.
- (3) Child - alien detained or detained, submissions in the proceedings may submit their own language, and in other cases under conditions of reciprocity.

In terms of knowledge:

- (1) The child has the right to be informed of all institutions that come in contact with, for the rights involve duties and responsibilities prescribed by the Convention on the Rights of the Child and other international documents on the rights of children.
- (2) The child has the right to be heard and examined and Coach rights in this procedure and the procedure itself.
- (3) In each judicial and extrajudicial proceedings in participating, the child has the right to actively participate in decision-making in his life and to give an opinion.

The children over 14 years can be imposed sanction for action which is done before it was prescribed by law as a crime or offense for which no sanction was established by law or by international treaty. For children over 14 years in the informal treatment of the competent authorities and services, as

well as in the proceedings, shall be guaranteed the same rights as the adults persons in a criminal or legal proceedings, and special rights recognized in the Convention on the Rights of the Child and other ratified international agreements, in all stages of the proceedings and the imposition and execution of any sanction conduct of court and other institutions in the application and enforcement of the sanctions and other measures should be adapted to the age, personality, and the needs and interests of the child .

The modern juvenile justice system, its performance, role and persons in charge of implementation of Juvenile Justice, and his alternative way to resolve the case when the child comes into conflict with the law, in conformity with international documents in which our legislation is fully set based the international standards and regulations, particularly those adopted by the UN. In proceedings against children, except the courts having jurisdiction to resolve the dispute, should be covered the police and prosecution. JUSTICE children must be in close correlation with authorities in the field of health and education, social services and non-governmental organizations that provide assistance and support to victims.

The specificity of the criminal proceedings against children is a clear reason, because this is about people that have not yet sufficiently developed psycho - physical awareness, like adult delinquents of criminal acts, it is impossible to understand the importance of their actions and the consequences of it. Therefore, the very punishment of children go to it to deter children from again committing the crime, and to understand the consequences of their delinquent conduct.

2. Subjects of criminal proceedings against children

Criminal proceedings against a minor is institutional framework for the achievement of criminal legal protection of beneficial values attacked with offensive behavior of

the child. The main objective of elevated action against child will be achieved only with the activities of certain persons who are legally entitled to participate in the proceedings. Provided subjects in the criminal proceedings have different roles during the procedure. Judge for children and Council to children are dominus lictis in procedure against children, other organs specialized are: centers for social work, public prosecution, the Interior Ministry and the institutions to carry out sanctions for children. Each treatment subjects should be guided by the principle "in the best interest of the child." Every child should be treated fairly and equally, regardless of their race, ethnicity, color, sex, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. In certain cases, you will need to be established special services, protection and fulfillment of children's rights. Professionals who work with and for children should receive the necessary training for the rights and needs of children of different age groups, and that can be in a situation of great vulnerability. Professionals should take measures to prevent discomfort during the process of detection, investigation and prosecution including potentially intimidation, revenge or secondary victimization. Indispensable role in the proceedings against the child have witnesses and experts. All subjects should be strictly professional in their actions.

3.Competence Court

One of the basic operation guess of uplifting and running the procedure (including proceedings against children), is based on law jurisdiction to act in certain legal matters. Criminal proceedings against children in our legislation is litigation, unlike some legal systems (Scandinavian) where the procedure can be driven before the administrative authorities. Law courts establish a new concept and organization of

the courts in the Republic of Macedonia, that only courts with extended jurisdiction is competent to decide on offenses committed by children.

3.1. Subject-matter jurisdiction

When it comes to subject matter jurisdiction of the court proceedings against a child is regulated otherwise in contrast to criminal proceedings against adult offenders. While the proceedings against adult offenders, is relevant severity of the crime, in exceptional children are competent courts with jurisdiction expand. Secondary Competent Court is the Court of Appeal, the Council of Juvenile Court of Appeal, is composed of a juvenile judge and two judges and decides on appeals against decisions of the Council of basic juvenile court. In the Supreme Court set up a Council for minors composed of five judges.

3.2. Local Jurisdiction

Local jurisdiction in proceedings against children are generally determined by place of residence forum domicile and if no residence or is unknown, locally competent court of residence, but not determined by the place of execution of the crime *forum delicti comissi* as determined in the regular procedure. Only in exceptional cases, when it is obvious that in the Court the will be easierto implement the procedure, it can be implemented by the Court of the residence of the child, although he has his residencei.e. by the Court on the place of execution the crime. This is the case when is obvious that front that Court proceedings will be conducted without delay.

This way of determining the local jurisdiction in proceedings against children is its justification in the fact that the determination of the circumstances under which the minor is developed and in which he lived and general collection of data

about the child's personality and his intellectual development, most efficiently performed exactly the place in which he lives or resides. If at the moment of uplifting of criminal procedure, the child is abroad, local jurisdiction is determined by the place of his residence.

Also, this method of determining the local jurisdiction is in function of the principles of urgency and cost of the procedure against minors.

4. Public Prosecutor

Criminal proceedings against minor can raise initiative of the public prosecutor, which is the only authorized plaintiff in the proceedings. Due to the specificity of criminal procedure against child whose task is not only detect the existence of a crime, but also protect the child committed a crime, function prosecution can not be left to the initiative of damaged. The authority of the Attorney General determines pursuant jurisdiction of the Court, before whichelevated and proceedings. The local jurisdiction of the Attorney General to coincide with the local jurisdiction of the court competent to act in the proceedings against children. Basic Public Prosecutor acts before District Court, Higher Public Prosecutor acts before the appeals court. The public prosecutor must have special knowledge and skills in the field of children's rights. The public prosecutor shall undertake all actions in the procedure for which is authorized by law, either alone or through persons on the basis of the Law on Public Prosecution is authorized to represent the criminal proceedings.

5. Counsel

Counsel in the treatment of children during the proceedings front the competent authorities provides legal assistance, i.e. despite the defense function, one of the three main functions in the criminal proceedings, take care to protect the rights and interests of the child from injury during the procedure. Child and his legal counsel

throughout the proceedings front the competent authorities have the right to take an attorney who will care of the rights and interests of the child. Counsel may only be a lawyer listed in the directory of lawyers who leads the Bar Association of the Republic of Macedonia. The family chooses lawyer, and if not choose a lawyer, it determines the competent authority by jurisdiction list compiled by the Bar Association. A lawyer representing the rights and interests of children in the following procedures: Procedure for the application of measures of assistance and protection of children and minors at risk, a procedure for mediation and conciliation, mediation procedure, criminal procedure, litigation. A child who has been accused of a crime has the right to counsel at all stages of the criminal proceedings. The cost of the lawyer are borne by parents i.e. guardians of the child, and in cases where they are unable to pay, they are borne by the State Budget. In case the child has no legal representative, it with decision sets the President of the Court from among the lawyers who have acquired special knowledge in the field of children's rights and criminal law protection of children . The costs of representation shall be borne by the judicial budget. A lawyer appointed by the president of the court is obliged to follow specialized training in child delinquency of at least 4 to 10 days in the country or abroad.

6. The role of police in criminal proceedings against a child

Given the function of the police to protect the legal order, prevention and detection of offenses and prosecution measures against the perpetrators of such crimes, as well as the maintenance of public order and peace that comes its role and place in the criminal justice system especially important is the consistent application of the new concept of child delinquency by police officers. Namely, the legal right and duty police officers to apply police powers can result in restrictions on fundamental rights and

freedoms guaranteed by the Constitution and laws. For this reason, any restriction of the rights and freedoms must be in the conditions and procedures established by the Constitution and law. This request for strictly defined conditions and procedures in which the application of police powers restricting the rights and freedoms of citizens has a specific weight when it comes to children. Law on Police only generally regulates the taking of police powers to the children. The legal provision requires special qualifications or possession of specific knowledge of the police officers who take police powers against children. Allowed deviation from the rule, "because of the circumstances," especially when the trained police officers to deal with children can not act, police powers against children can apply to other police officers. The focus of the new concept is the formal treatment and is aimed at diverting children from formal litigation. But when it comes to turning away from formal court proceedings, the role of police officers in the limits of the principle of legality. The threshold of making based on the principle of expedience is the level of public prosecution. Thus, according to police officials have a responsibility in dealing with child and minor at risk to inform the Centre for Social Work (CSW), and there is the obligation of mutual information and cooperation among all the institutions that deal with children and minors at risk (police, CSW, schools and other institutions). At the same time, starting from the definitions given in the law when it comes to the state of risk consisting of action of younger or older juvenile who is defined as a crime which is punishable with imprisonment up to three years or a misdemeanor, police officers together with the notification to CSW submit appropriate submission to the public prosecution. Law on Justice for Children exhaustively determine the conditions when the child may be retained by the authorized officials of the Interior Ministry. These are the following cases: a child caught in the act of act which is intended as an offense against

public order, if the establishment of public order or removal of the threat can not be achieved otherwise or when under the influence of alcohol, drugs or other psychotropic substances. In keeping the child, authorized officials have an obligation to keep the child in a separate room for temporary detention and preparing a record retention that potpishuvaatdeteto, his parents and counsel. Also, during the retention absolutely forbids the interrogation or they interview the child without the presence of counsel. The detention report is made which includes all podtoci for the date and time when the child is detained, the reasons for detention, the time was advised of his rights, his psychological state, the time is rzgovarano children, finding the people responsible for the existence the injury and the time of termination or retention. The minutes shall be signed by the child's parent or guardian and defender.

7. The role of the Centers for Social Work (CSW)

Law on Justice for Children pays great attention and delegate important tasks of CSW. It is envisaged that the actions of CSW procedure for determining measures of assistance and protection, because compensation mediation between the child and the injured, opinion and report on the direction in which to proceed in the public prosecutor in the procedure for mediation and conciliation, and It's this stage before the start of official procedure, and the relationship of the SWC with the public prosecutor and the judge for minors after the start of treatment. Below the paper will be accurate, prominent, role, function and meaning of the SWC in criminal proceedings before the juvenile.

8. Preparatory action against child

Preliminary proceedings against a child, the first compulsory stage of the proceedings against children. The purpose of this procedure is to determine the facts relating to the offense and the personality of the

child. In the preparatory proceedings against a child, primarily collect data pertaining to the child's personality. In the preparatory procedure evidence is that there is a danger that it will not be repeated in the trial or their performance will be followed by difficulties in further proceedings. The preparation procedure is obligatory stage in the proceedings against children, unlike under investigation, which may be lacking in regular criminal proceedings (cases of direct action). The preparation procedure differs from investigative some formal features. The first difference is that the acts that initiate investigation in criminal proceedings and request for a preliminary proceedings against a child. Court for his consent to conduct investigations adopt formal decision on the other hand, the initiation of preparatory proceedings, not de adopted any formal decision. The investigation conducted by the investigating judge, and judge the preparatory procedure for children. Formal legal speaking, the investigating judge make the decision, the Council invited the judges, while the juvenile judge addresses the council for children. Leading the preparation procedure is mandatory for all crimes regardless of their weight.

8.1. Initiation of preparatory proceedings against a child

The preparation procedure is initiated by the request of the public prosecutor to the judge for children of the court. The procedure is initiated when the Attorney General finds that case is clear and when such conduct exists line of the child, his legal representative, counsel and damaged. Because down their consent, they are invited to call at that, in case of non-appearance neat invited are considered expression of disagreement. Judge for children may not agree with the petition, upon the request of the public prosecutor and it will seek to decide criminal council for children competent court. Judge for children can ask the police authorities, to search the home, temporary seizure of

property, or other actions in favor of proceedings under the Criminal Procedure Code. After the collected data, if the judge for child, said there is no need of performing other actions will bring the matter before the council for children due to the final resolution within a period not exceeding eight days. If the Council decides that the child needs to perform other actions in the preparatory process, will make a decision that will return the case to the judge for children to complement the preparatory process. But the law gives the right of the public prosecutor to submit a proposal to the council for children without conducting preparatory procedure to pronounce sanction, notwithstanding Article 75 of the Law on Justice for children, action provided offense for which a sentence is determined imprisonment of up to three years. Preliminary proceedings will be conducted if the case is sufficiently clarified and collected data on the child's personality provide sufficient basis for decision. The actions in the preparatory proceedings may attend the public prosecutor and counsel with each process activity of the person attending the public prosecutor me eust attend counsel. Their presence depends on their will, they can, but it is not moral to attend. After approval of the juvenile judge the actions in the preparatory procedure can attend centrist Social Affairs and the parent or adoptive parent or guardian of the child, which can make proposals and to refer questions to the person being investigated or examined. The presence of these people depend on the decision of the court. Judge for children may order the child during the preparatory procedure to be placed in a shelter, in an educational or similar institution, to be placed in custody to the custody or surrender to another family, if it is necessary to separate the child the environment in which they live, or for assistance, care or placement of the child. All this is done in order to be allow the child to feel uncomfortable, that all actions are in the best interest of the child, avoiding

the strict formal rules provided for adults builders crimes.

In the preparatory process towards the child despite the facts relating to actions by law provide for such criminal act also specifically determine the age of the child, the circumstances required for the assessment of his mental development, will examine the environment in which that the circumstances of the child lives and other circumstances relating to his personality. In the preparatory proceedings against child first determine the facts of the crime. The starting point for the procedure against a child is that the work is done, it is a crime and that there is a reasonable suspicion that a child has committed the same. If the procedure is determined that no crime or that the child is not an offender, the court shall not impose criminal sanctions regardless of how many reasons there are the educational point of view. For the determination of these circumstances will hear the child's parents, guardian or other persons who can give needs data. In these circumstances, the judge will ask the children report center if there towards the child if the child-sanction was applied for earlier crime will obtain a report on the application of that sanction. In the preparatory proceedings shall determine age of the child, because it depends on the application or the inability of the application in whole or in part to the specific substantive and procedural provisions. Therefore age of the child must be fix at the very beginning of the preparatory process as making a normal way, with insight into the birth certificate, certificate of citizenship, certificate of completion, health card, using witnesses, and in case of necessity and medical examination. Judge for children may not have the free assessment to determine the age of the child. Data on the personality of the child obtains the judge for children. Therefore it is the judge for children to be specialized in the performance of judicial office and specializes in issues relating to child delinquency, a person with high

moral, ethical and character traits, with a high degree of pedagogical communication than formal judicial approach to children. So judge for children at the very beginning of the process must be close to the child with him to establish direct contact contact of trust, understanding " Judge least condemn the child, the most accomplished of the education process by explaining the relationship between the person and the offense, he is at least a judge, most man that determines destiny and future development of the young person and respect. "Essentials's first contact with the child. To successfully accomplish this contact the judge to know the psyche of the child which means having some additional knowledge beyond his legal knowledge. The special role of the judge for children must not be understood as an opportunity to provide a response in those areas where the answer can be given only competent professionals, but rather what is required of a judge is to be able to understand, to be able using his legal knowledge and knowledge gained in other areas of science. The preparatory process is trial and it lead judge for children of the court. The child may be retained by the authorized officials, if the child is caught in the act of act which is intended as an offense against public order, if the establishment of public order or the removal of the threat can not be achieved in another means or under the influence of alcohol, drugs or other psychotropic substances. Detained child without delay and no later than 12 hours must be brought before a judge for children, which decides on the merits and prices legality of their detention. During the proceedings against the judge children for children can bring a proposal from the public prosecutor detention decision after obtaining an opinion from the Centre and in the foundations of existence chl.199 LCP. Detention may be imposed only as a last resort to ensure the presence of the child during the procedure and if this can not be achieved with other measures envisaged by the Law on Criminal Procedure. In child custody are placed separately from adults.

In the custody of the child provides a right to work and other activity, which is useful for upbringing to remove the negative consequences of the arrest on his personality.

8.2. Completion of preparatory action against child

Once you examine all the circumstances relating to the crime and the personality of the child, the judge for children after the preparatory procedure submit records to the public prosecutor who may, within eight days to request preparatory procedure to supplement, not waive further prosecution or to put a reasoned proposal to the council for children to apply sanctions. If public prosecutor waive prosecution, judge for children stopping make a decision on the procedure. Petition within 8 days of the notice may request the Council to extend the juvenile proceedings. If the public prosecutor did not submit a proposal for amending or stopping of the preparatory stage, then he submitted a proposal to punish or proposal for the implementation of educational measures towards the child to the council for children of the court.

8.3. Proceedings before the council for children

After receiving the proposal of the public prosecutor, and when the procedure is no suggestion of the public prosecutor, judge for children who chairs the council for children scheduled meeting of the council or the trial, if established indisputable facts. The procedure before the council for children will lead the session or the trial judge decides for children who always is president of the Council for Children. He is guided by the nature of the crime and the data on the personality of the child, the

quality of the evidence to establish the decisive facts, the defense and the need for adversarial hearing, and the type of criminal sanction is imposed to be rendered based on the overall state of affairs related to the child's personality and crime. Law of Justice child two different ways of proceeding before the council for children and meeting of the council or a trial. When deciding whether to schedule a meeting of the council or the trial judge for children must always respect the provisions of Article 125, paragraph 3 of the law for righteousness to children stipulating penalties and institutional educational measures may be imposed only held the trial, while other educational measures may be imposed in the session. In a meeting of the council may hold a trial.

8.3.1. Procedure at the session

Judge for children, is obligated to schedule a meeting of the council for children, within eight days of the proposal According to the Attorney General. The session of the Council shall be informed and could not attend the public prosecutor, defense counsel, and the representative guardian, and when it is needed and the child and his parents or guardian. The decision whether to hold a meeting of the council or the trial judge for children must be based on consideration of the state of the evidence and the degree of probability of the existence of the facts relating to the offense, see the personality of the child and the assessment of the sanction which would come to mind. The presence of the child at the meeting of the council decides judge for children, or the president of the council, and it stems from the circumstance that he schedules a meeting of the council and ordered to be called on it. In proceedings before the council for children legislator went the assumption that the main part of the work has already been completed in preparation procedure. Therefore, the focus

of all the things in the proceedings against children has been transferred from the main discussion of the preparatory stage. In another phase of the procedure remains to perform the most responsible job in the whole procedure and it is the choice of the appropriate sanction, which would be to impose best child offender the casekrim. Given that it is not solely the work of the legal decision, the legislature has left the court considerable autonomy in finding adequate procedural form and covered many major concessions from the trial in the regular criminal procedure, that procedure is conducted against adult offenders crimes. The proceedings before the council for minors begins with the submission of a proposal by the public prosecutor for the application of an educational measure or proposal for imposing punishment of a child. This act of public prosecutor is neither an accusation nor an indictment, and therefore the proceedings against children None of the charges on the objection of the accused. There are many deviations from the regular criminal proceedings for the procedure against children make a special and specific.

For example, counsel for children is not bound to the proposal of the public prosecutor to a correctional measure or to apply a penalty, so the court can not go beyond the request of the public prosecutor. Council is not bound to our description of the crime by the public prosecutor and can no proposal to amend or extend the charge to make a decision based on the facts established at the main hearing. In proceedings before the council for children there is the possibility of the procedure to be conducted without public prosecutor general, since it during the preparatory procedure gave the proposal or has filed proceedings. In such a case, there is no proposal for the application of educational measurement and preparation procedure immediately becomes pending before the council for children. All this pointed to the very broad powers of the council for

children at this stage of the procedure. The proceedings of the meetings of the Council in writing and secret, no immediate assessment of the evidence, a contradiction to some extent is saved because the public prosecutor and counsel the child can give clarifications Council sessions that can be held in their absence.

The proceedings before the court should not jeopardize the future development of the child, so it is left to chance the choice of that procedure will not harm the child or his personality in his future life.

8.3.2. Trial

Judge for children is required to assign a trial within eight days of receipt of the proposal of the public prosecutor. When the council decides to children at a public hearing, pursuant to the provisions of the Code of Criminal Procedure for the preparation of the trial, the management of the trial, the postponement or adjournment of the trial, the record for the course of the trial, but the council may deviate from these rules if it considers that its application in this case would not be appropriate. The trial will invite the public prosecutor, the victim, the child and his attorney, his parents or guardians and center representative or member of a professional team that prepared the expert's opinion. The trial against minor is closed to the public, and that is a feature of this procedure. But this debate may be allowed to attend persons dealing with the protection and education of children or dealing with problems of combating the problems of children delinquency also academics as teachers, researchers, pedagogical workers and the like. The whole search is conducted thus, the child does not feel displeased or uncertain. The main hearing against children are organized in the spirit of the basic principles that the principle of

orality immediacy and contradiction. The child can not be tried in absentia.

Delay or interruption of the trial is done only in exceptional cases. For any delay or interruption of the trial judge for children, will inform the president of the court and shall state the reasons for the delay or interruption.

Conclusion

The paper points to the normative regulation of criminal proceedings against a child with a comment to a particular area - state. Each state criminal law regulates this matter, the competencies and the process at different levels of government. All this is regulated by national law, but it is necessary to fit in international criminal law.

The essence of competence is not constant but changes with the culture and social development of society. Depending on the economic development is regulated and relationship to the child and the relevant procedures. More developed countries have better regulation of relations of children and greater compliance the child within the level of socialization of society.

References

1. Bacic-Separovic, Criminal Law (separate part), Zagreb, 1992;
2. Vitlarov, T., *Criminal Law-separate part (authorized lectures)*, University "Goce Delcev" Stip, Faculty of Law, Kocani, 2008,
3. Kambovski, V., *Criminal Law (general part)*, Third revised edition, Skopje, 2006,
4. Kambovski, V., *Criminal Law (general part)*, Third revised edition, Skopje, 2006;
5. Kambovski, V., *Criminal Law (separate part)*, Prosvetnodelo, 2003;
6. G. Kajzer, *Criminology*, Alexandria, Skopje, 2006;

DETERMINATION OF FREQUENCY CERTITUDE OF OE SPINNING MACHINES

Dr Slobodan Stefanovic professor

Advanced (High) school of applied professional studies, Vranje, Serbia

Abstract: In order to create a universal optimal model of certitude functioning it is necessary to analytically determine the shape of the transfer functions of the optimal operation model $M_{\xi}(t)_{NK}$ that will define the frequency of the analyzed sklopa.

Key words: model, the transfer function, the system for winding yarn, the algorithm, the monitoring system

1. INTRODUCTION - DESCRIPTION OF A FRAME FOR COIL WINDING WITH FINISHED YARN

Powertrain system of a frame for for coil winding with finished yarn is shown in Figure 1. and consists of the following parts and components which are classified on the basis of spun yarn which is produced by a twist of the rotor (turbine) and on its way to the coil which is wound¹.

THREAD GUIDE (F1) - used to evenly and safely winding yarn on cone coil. His movement is straight with reciprocating, the number of cycles is 120 cycles/minute. It is made from a special type of ceramic with a metal plate on the occurrence of friction-resistant. Installation and removal are very easy.

CORE HOLDERS (F2) - are used for alignment and uniform circular rotation of the coil winding. Holders are made of special type of polymer, the special shape drawn on holly bearings. When bearing is broke, due to,

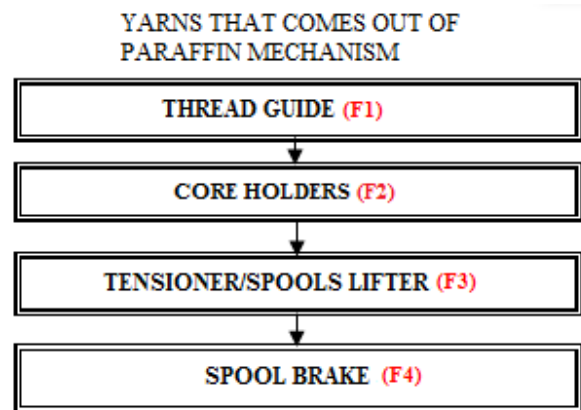


Figure 1. The transmission system of a frame for coil winding with finished yarn

TENSIONER AND LIFTER OF A SPOOL (F3) - a spring lever system which supports the full spools onto the conveyor belt. The spring system is unstrained in coil winding yarn, while at the same full coils are activated and divides the full coil coating in which the coil tighter when reloading.

SPOOL BRAKE (STOP BEFORE THE YARN BREAK) (F4) - is a system that consists of a cylindrical lining of which overlaps coil winding in and of the lever which is activated at the binding of a broken yarn.

¹ S. Stefanović, RESEARCH INTO THE CAUSES OF INACCURACIES OF COMPONENTS OF COMPLEX FOR COIL WINDING WITH FINISHED YERN AT OE. Lucrarea trimisă redacției MetalurgiaInternational a fost acceptată spre publicare în numărul 2013., ISSN 1582 – 2214, “METALURGIA INTERNATIONAL” is introduced in THOMSON SCIENTIFIC MASTER JOURNAL LIST, letter M, position 440.

2. RESEARCH INTO THE CAUSES OF DEFECTIVENESS OF THE POWER TRANSMISSION COMPONENTS FRAME OF THE OE SPINNING MACHINES - FAULT SCAPE ANALYSIS

Failures were due to subassemblies OE - spinning on the basis of elevated levels of mechanical oscillations recorded on the basis of the data collection ie. organization of the course of the level of mechanical oscillations measured values of stochastic signals at selected measuring points. Based on all the registered clients of the analyzed complexes formed integral components of the fault tree circuits OE spinning machines.

Failure analysis on the frames of OE – spinning machines included the use of methods fault tree analysis occurring as a result of mechanical oscillations of the analyzed circuits. This analysis will later be used in the analysis of the reliability of the components of the analyzed components.

From the standpoint of functionality and structural characteristics analyzed circuits of OE - spinning labeled R_I are complex technical circuits in textile technology in terms of operation and maintenance in terms of technology. The structural part of the technical components is derived from the production of components that have a high technological level (very good surface treatment, durability and stability). However, as with all technical components are certain weak points.

The main elements of the transmission circuits are analyzed and their weak points are chosen technical components and are defined as a single weak points where the

failures are repeated, and the same can be partly overcome by the introduction of technology proper maintenance on them ie. maintaining the level of mechanical oscillations in the specified bands (within certain limits their their impact). Continuous monitoring of failure occurrence, due to the increased activity of mechanical oscillations, there is the goal of maintaining the condition that. regular preventive maintenance can mitigate the effect of the impact of mechanical oscillations, and thus decrease the number of clients integral components of the analyzed components. Fault tree analysis shows that intensive monitoring of failure leads to the discovery of weakness on the techniques of circuits, which in this part of the analysis done.

Failure analysis is presented deductive technique in which the specification of unintended consequences resulting from the impact of mechanical oscillations (vibrations) that appear in the process of exploitation of the analyzed components OE - spinning. The analysis included the character causes of failure of the main circuit elements (related to the analysis of complex spinning boxing - heart OE spinning machines and assembly of finished coil winding yarn) and the ways in which the cause leads to failure.

The results of the number of poor points failure who receive the service conditions, be used in the safety analysis of the functioning of the analyzed components (determination of the percentage of failures) and to determine their reliability.

In figure 2. are given the reasons for the impact of mechanical oscillations that lead to failure of components and assemblies of components analyzed, based on which one can predict the actions of their preventive maintenance technologies.

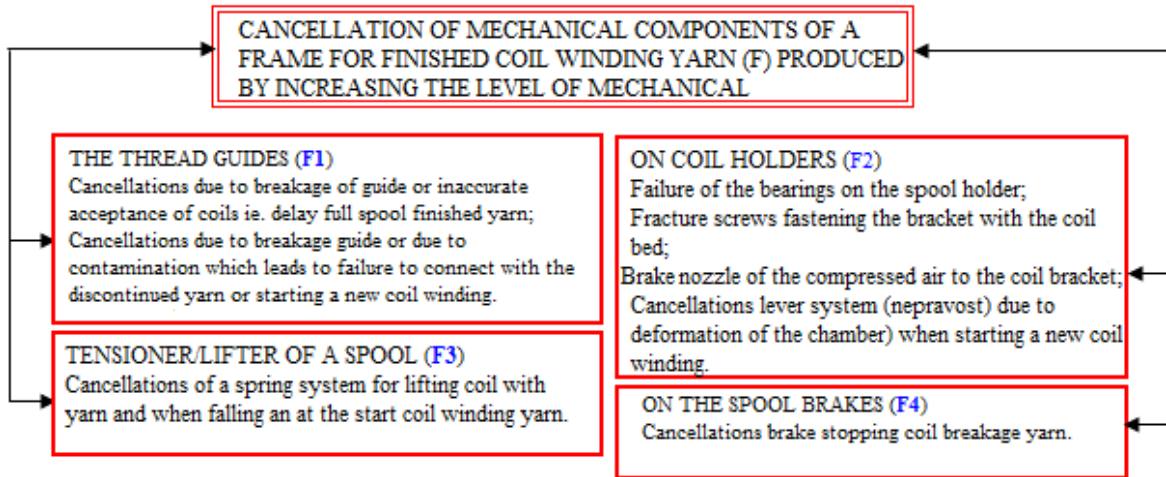


Figure 2. Failures in the constituent assembly components for the finished yarn winding coils due to the increased effects of mechanical oscillations

1. ESTABLISHMENT OF A UNIVERSAL OPTIMAL OPERATION MODEL - DETERMINATION OF FREQUENCY CERTITUDE

In this analysis started from the method for determining the sub-models

according to selected measuring points for determining the mechanical oscillations and then was made a structural block diagram submodel in the way of movement and its yarn processing delay.

Structural block diagram of transmission on selected sampling points is shown in Figure 3.,

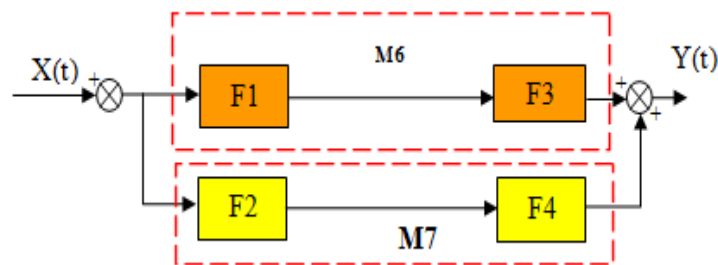


Figure 3. Display of a frame for coil winding with finished yarn through structural blocks

where:

M6 - measuring point level fluctuations on the conductor strands and the cylinder to rotate the spool in his winding the finished yarn,

M7 - measuring point level fluctuations on the tensioner/lifter spool, and the spool holder.

NOTE: In the formation of this model started from the block diagram that are different from the block diagram in determining the reliability of the transfer function. The reason is that the measuring point 6 includes the impact of the tensioner and lifter (F3) while another part that makes this subgroup of a brake coils (F4) belongs to the measuring point 7, so it is necessary to distinguish their effects. In determining the reliability of the transfer function that

was not of great importance, and models for determining the optimal assembly for winding coils the finished yarn is of great importance, because it determines the measuring points and the influence of each component of the heat caused by the occurrence of mechanical oscillations.

With the introduced labels measuring points (M6 and M7) transformation of the structure of the block diagram is as follows (Figure 4.):

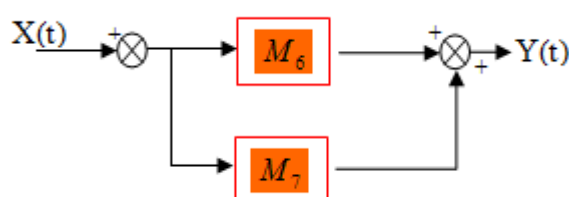


Figure 4. The transformation of the structure of the block diagram of transfer to sub-models for winding coils with the finished yarn

Model analysis was carried out and stepping to determine the sub-models according to selected measuring points for determining the mechanical oscillation (vibration), and then made srtuktura block diagram linking sub-models of transportation mode input processing yarn yarn (thread guide) to the output (cross the road) ie. the final stage (the final winding yarn around a spool).

Note: This block diagram structure will be further used to determine the general form of the transfer function of the optimal model $M_{\xi}(t)_{NK}$ to be defined as the frequency of the safety assembly for winding coils the finished yarn.

To carry out the general form of the transfer function of the optimal model, it is necessary to determine the terms of sub-models (M_i) that are included locations of measuring the level of vibration.

2. MEASURING POINT 6, includes components – threas guide (F1) and spool tensioner/lifter (F3).

Thread guide moving in a straight line - the axial direction and with 60 cycles in one minute (30 cycles in an axial direction, and so in the other) in a way that leads spun yarn from one end to the other end of the coil winding is being carried out. As the authoritative speed takes the speed of one cycle of movement guide,

$$\mathcal{G}_{VODIČ-NITI}(t) = \omega_{F_1}(t) = f(A_6(t)_{F_1}) \neq \omega_6.$$

Spool tensioner/lifter is activated when the process begins winding the yarn on the bobbin ready and then when fully wound bobbin yarn, which frees it from the rollers

to rotate the coil winding is raising up. The relevant angular velocity is the speed of the roller rotation coil (roll is the same shape as the coil and act on it in pairs),

$$\omega_{VALJKA}(t) \neq \omega_6(t).$$

$\omega_6(t)$ - The angular velocity circular assembly at the measuring point 6, as a function of the oscillation amplitude $A_6(t)_{F_1}$, $A_6(t)_{F_3}$.

Equation 6 is a sub-models:

$$M_6 = M_6' \cdot M_6'' = \frac{R_{F_1}(t) \cdot A_6(t)_{F_1}}{\omega_{F_1} = f(\omega_6)} \cdot t_{13} \cdot \frac{R_{F_3}(t) \cdot A_6(t)_{F_3}}{\omega_{F_3} = f(\omega_6)} \cdot t_{14} = \frac{(P-R)_{F_1}(t)}{\omega_6} \cdot t \cdot \frac{(P-R)_{F_3}(t)}{\omega_6} \cdot t$$

$$M_6 = \frac{t^2}{\omega_6^2} \left((P-R)_{F_1}(t) \cdot (P-R)_{F_3}(t) \right) \quad (1)$$

$R_{F_1}(t)$ - The reliability of the guide or the useful period of work;

operational level values of mechanical vibrations at the measuring point 6.

$R_{F_3}(t)$ - The reliability of the belt / pickup coil in a useful period of work;

3. MEASURING POINT 7., includes components: coil holder (F2) and the brake coil (F4).

$A_6(t)_{F_1} \left[\frac{m}{s^2} \right]$ - The amplitude of oscillation in a helpful guide or period of the measuring point 6;

$A_6(t)_{F_3} \left[\frac{m}{s^2} \right]$ - Amplitude of oscillation belt / pickup coil in a useful period of the measuring point 6;

Coil holder has a circular motion and turning over the rolling bearing, over which sits in firmly. Longitudinal rotation speed ($\omega_{LEŽAJA}(t)$), is the speed bearing that is different from the circular velocity at the measuring point 7.

$t_{13}, t_{14} [s]$ - Uptime components at the measuring point 6;

$(P-R)_{F_1}(t)$ - A polynomial with real coefficients, which gives the dependence of reliability of the component guides in the function or value of the level of mechanical vibrations at the measuring point 6

$$\omega_{F_2} = \omega_{LEŽAJA}(t) \neq \omega_{F_4}(t) = f(A_7(t)_{F_2, F_4}) \neq \omega_7.$$

$(P-R)_{F_3}(t)$ - A polynomial with real coefficients, which gives the dependence of the component reliability tensioner/lifter

$\omega_7(t)$ - The angular velocity circular assembly at the measuring point 7, as a function of the oscillation amplitude $A_7(t)_{F_2}$, $A_7(t)_{F_4}$.

Equation of a sub-models 7 is:

$$M_7 = M_7' \cdot M_7'' = \frac{R_{F_2}(t) \cdot A_7(t)_{F_2}}{\omega_{F_2} = f(\omega_7)} \cdot t_{15} \cdot \frac{R_{F_4}(t) \cdot A_7(t)_{F_4}}{\omega_{F_4} = f(\omega_7)} \cdot t_{16} = \frac{(P-R)_{F_2}(t)}{\omega_7} \cdot t \cdot \frac{(P-R)_{F_4}(t)}{\omega_7} \cdot t \quad (2)$$

$$M_7 = \frac{t^2}{\omega_7^2} \left((P-R)_{F_2}(t) \cdot (P-R)_{F_4}(t) \right)$$

$R_{F_2}(t)$ - The reliability of the coil holder in a useful period of work;

$R_{F_4}(t)$ - The reliability of the brake coil in a useful period of work;

$A_7(t)_{F_2} \left[\frac{m}{s^2} \right]$ - The amplitude of the oscillation coil holder in a useful period of the measuring point 7;

$A_7(t)_{F_4} \left[\frac{m}{s^2} \right]$ - Amplitude of oscillation brake coil in a useful period of the measuring point 7;

$t_{15}, t_{16} [s]$ - Uptime components at the measuring point 7;

$(P-R)_{F_2}(t)$ - A polynomial with real coefficients, which gives the dependence of reliability of the component holder coil operational level values of mechanical vibrations at the measuring point 7;

$(P-R)_{F_4}(t)$ - A polynomial with real coefficients, which gives the dependence of the reliability of components brake coil operational level values of mechanical vibrations at the measuring point 7;

6. CONCLUSION

The general form of the universal equation of the optimal model assembly for winding coils the finished yarn is obtained by entering all prior specific factors (the transfer function of the optimal model $M_\xi(t)_{NK}$, **which is defined as the frequency of the safety assembly for winding coils the finished yarn**) so that:

$$M_\xi(t)_{NK} = M_6 + M_7 = \left(\frac{t^2}{\omega_6^2} (P-R)_{F_1}(t) \cdot (P-R)_{F_3}(t) \right) + \left(\frac{t^2}{\omega_7^2} (P-R)_{F_2}(t) \cdot (P-R)_{F_4}(t) \right). \quad (3)^2$$

² S. Stefanovic, THE ANALYSIS OF FUNCTIONING OF BASIC COMPONENTS OF OE - TECHNICAL SYSTEM, INTERNATIONAL JOURNAL OF ENGINEERING, Tome XI (Year 2013). Fascicule 1. str. 237-244, ISSN 1584 – 2665, ANNALS of Faculty Engineering Hunedoara, Romania.

The introduction of shift:

$$\begin{aligned} (P - R)_{F1}(t) \cdot (P - R)_{F3}(t) &= \xi_{10}; \\ (P - R)_{F2}(t) \cdot (P - R)_{F4}(t) &= \xi_{11}. \end{aligned} \quad 4)$$

it is obtained universal equations of the optimal model for the security of the complex coil winding the finished yarn:

$$M_{\xi}(t)_{NK} = \frac{Y(t)}{X(t)} = t^4 \left(\left(\frac{\xi_{10}}{\omega_6^2} \right) + \left(\frac{\xi_{11}}{\omega_7^2} \right) \right). \quad (5)$$

7. LITERATURE

1. Adamović Ž., Stefanovic, S., Procedures for the implementation of control of mechanical vibrations and method of collection of the data on technical systems, XVIII Yugoslav conference with international participation "Noise and Vibration", Faculty of Occupational Safety, Niš, 2002.
2. ROTOR Spiner, GMB, RIETERR, 1995.
3. S. Stefanovic, DETERMINATION OF THE VALUE OF SELECTED OSCILLATION FREQUENCY MEASUREMENT POINT ANALYZED PARTS OF SPINNING - On the box spinning, PRIYANKA RESEARCH JOURNAL PUBLICATION, International Journal of Mechanical Engineering Research and Development (IJMERD) ISSN 2248-9347, India, 2012.
4. S. Stefanovic, DETERMINATION OF OPERATION TIME RISK OF BOX SPINNING COMPONENTS - OF SPINNING MACHINE American Journal of Engineering Research (AJER) e-ISSN : 2320-0847 p-ISSN : 2320-0936, 2013.
5. S. Stefanovic, THE ANALYSIS OF FUNCTIONING OF BASIC COMPONENTS OF OE - TECHNICAL SYSTEM, INTERNATIONAL JOURNAL OF ENGINEERING, Tome XI (Year 2013). Fascicule 1. str. 237-244, ISSN 1584 – 2665, ANNALS of Faculty Engineering Hunedoara, Romania.
6. S. Stefanović, RESEARCH INTO THE CAUSES OF INACCURACIES OF COMPONENTS OF COMPLEX FOR COIL WINDING WITH FINISHED YARN AT OE. Lucrarea trimisă redacției Metalurgia International a fost acceptată spre publicare în numărul 2013., ISSN 1582 – 2214, "METALURGIA INTERNATIONAL" is introduced in THOMSON SCIENTIFIC MASTER JOURNAL LIST, letter M, position 440.
7. Stefanovic, S., Ugrenović, M., Productivity of modern spinning machines, depending on the parameters of diagnostic failure in power transmission systems, Journal TEHDIS no.1/2002., Belgrade.

USE OF ICT IN DISTANCE HIGHER EDUCATION WITH SPECIAL REFERENCE TO INSTITUTE OF DISTANCE AND OPEN LEARNING OF GAUHATI UNIVERSITY

Sima Kalita¹ and Samarjit Das²

¹Department of Education, Gauhati University, Assam, India

²Department of Computer Science & IT, Cotton College, Assam, India

¹simakalita_gu@rediffmail.com, ²ssaimm@rediffmail.com

Abstract- ICT has become an indispensable part of education. Again the conventional education is undergoing a paradigm shift. Education is becoming learner centered rather than teacher centered. Such type of learning situation needs access to variety of information sources and different forms of information. Considering this fact the present paper try to have a glance on the available IT tools in the Institute of Distance and Open learning of Gauhati University. The paper also tries to see the percentage of Post graduate students of IDOL using Computer and Internet, their level of utilization, purposes of utilization and also the obstacles faced in using computer and internet. The percentage of computer and internet users among the students is not encouraging. They are also facing different obstacles in using those ICT tools. Some recommendations for improving the situation are also given. It is hoped that this paper will help the students, teachers and policy planer in the area of higher education.

Keywords: *ICT, Computer, Internet, IDOL, Post Graduate students.*

1.Introduction

The last two decades have witnessed change which is mainly caused by the rapid development and also use of Information and Communication Technology (ICT).ICT is an important tool in bringing potential changes and development in the area of higher education. ICT has changed the dynamics of various industries as well as influenced the way people interact and work in the society (UNESCO, 2002; Bhattacharya &

Sharma, 2007). India is characterized by a billion plus population and a high proportion of the young and it has a large formal education system. But the demand of higher education in India has skyrocketed and formal education cannot meet this demand. As a result it has to welcome distance education alongside the formal education. Low rate of education can be removed by the use of ICT. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome time and distance barriers (Mc Gorry, 2002).

2. Terminology

2.1. ICT: ICT combines telecommunications, computing and broadcasting and covers any product that will store, retrieve, manipulate, transmit or receive information electronically, including telephones, faxes, computers and televisions. The National Curriculum Handbook for secondary teachers in England (see <http://www.nc.uk.net/>) outlines the importance of ICT by stating that: “Information and communication technology (ICT) prepares pupils to participate in a rapidly changing world in which work and other activities are increasingly transformed by access to varied and developing technology. Pupils use ICT tools to find, explore, analyze, exchange and present information responsibly, creatively and with discrimination. They learn how to employ ICT to enable rapid access to ideas and experiences from a wide range of people,

communities and cultures. Increased capability in the use of ICT promotes initiative and independent learning, with pupils being able to make informed judgments about when and where to use ICT to best effect, and to consider its implications for home and work both now and in the future.”

ICT can be used as a tool in the process of education in the following ways.

2.1(a) Informative tool: It provides vast amount of data in various formats such as audio, video, documents.

2.1(b) Situation tool: It creates such type of situation, which the student experiences in real life. Thus, simulation and virtual reality is possible.

2.1(c) Constructive tool: To manipulate the data and generate analysis.

2.1(d) Communication tool: It can be used to remove communication barriers such as that of space and time (Lim and Chai, 2004).

The medium used for delivery and for conducting the education process are as follows:

- **Voice** -Instructional audio tools that include interactive technologies as well as the passive ones.
- **Video**-Instructional video tools which include still images , prerecorded moving images , and also the real –time moving images combined with audio conferencing
- **Print**-Print include textbooks, study guides, workbooks and case studies (Bhattacharya & Sharma, 2007).

ICT also allow for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time(Bhattacharya & Sharma, 2007).

2.2 Distance Education: This type of education crosses the barrier of time and space and hence students can work on their own from home and offices. Learner

and teachers can communicate with faculty and fellow students with the help of e-mail , instant messaging , videoconferencing , radio programme , satellite TV , electronic forums and also with other forms of computer- based communication. It is also known as open learning.

2.3 Higher Education: It is the third stage of education after Primary and Secondary education. Generally graduate and post graduate courses are included in higher education. Increase of intake capacity in the Primary and Secondary education and Government policy have resulted in the steep rise in Higher education. India is the third largest higher education systems in the world and has been witnessing healthy growth in its number of institutions and enrollment in the last few decades. In the 12th five year plan of India emphasis is given on shift from input centric to learner centric education which essentially creates the need of ICT.

2.4 IDOL: Institute of Distance and Open Learning, Gauhati University, Assam, India. Here the Institute of Distance and Open Learning of Gauhati University is considered for the study.

2.5 Assam: Assam is a beautiful state situated in the North eastern region of India. The capital of Assam is Dispur within the municipality area of Guwahati city. It has Brahmaputra and Barak valley. Lots of educational institutes are present here offering different types of education. The literacy rate of Assam is 73.18 (2011 census).

3. Need of the Study

ICT is a potential tool in the arena of Distance Higher education. Computer and Internet have more prospects in this field. Therefore it is imperative to see to what extent the learners of IDOL are using these two ICT tools. The problems faced in using such tools also need to be studied. Present paper is trying to work in this field.

4. Objectives

- (i) To find out the Percentages of Postgraduate students utilizing computers and Internet.
- (ii) To find out the levels of utilization of computers and internet by Post graduate students of IDOL, Gauhati University.
- (iii) To find out the purposes of using computer and internet.
- (iv) To find out the obstacles faced by the Post Graduate students in using computers and internet.
- (v) To offer some suggestions for improvement of the situation.

5. Methodology

5.1 Method: Descriptive Survey method has been applied in the study. Descriptive Survey method is a method of investigation which is used to discover, describe and interpret what exists at present.

5.2 Sample: 200 students from the different Departments of Institute of Distance and Open Learning, Gauhati University have been selected with the help of Purposive sampling technique out of which 100 were male and 100 were female.

5.3 Tool: self prepared questionnaire was used to collect information from the selected sample.

5.4 Statistical Technique: Percentage analysis under Descriptive Statistics was used for analysis of data.

6. Delimitation

Only computer and Internet have been taken as ICT tool for the present study. Only postgraduate students of Institute of Distance and Open Learning (IDOL), Gauhati University are taken as the sample here.

7. Analysis and Discussion of Data

In this section the investigators try to present the responses of IDOL, Gauhati University post graduate students regarding the availability of different ICT tools in IDOL, percentage of Post Graduate students using computers, percentage of Internet users, levels of utilization of Internet, purposes of using and obstacles in utilization.

Table 1: Responses of the post graduate students of IDOL regarding availability of different ICT tools

| ICT tools used in the IDOL,GU | | |
|--------------------------------------|--------------|----------|
| Different ICTs | Count | % |
| TV programmes | 60 | 30 |
| Video camera | 120 | 60 |
| Digital camera | 130 | 65 |
| Computer | 200 | 100 |
| Laptop | 168 | 84 |
| Internet | 200 | 100 |
| Intranet | 145 | 72.5 |
| Generic Software | 2 | 1 |
| CD/tape/mini-disk/pen drive | 167 | 82.5 |
| OHP | 200 | 100 |
| Radio use | 200 | 100 |
| Use of mobile | 200 | 100 |
| Digital library | 200 | 100 |
| Virtual Classroom | nil | nil |

Table 2: Percentage of post graduate students of IDOL in computer utilization

| Gender | N | Count | Percentage(%) |
|--------|-----|-------|---------------|
| Male | 100 | 66 | 66 |
| Female | 100 | 53 | 53 |
| Total | 200 | 119 | 59.5 |

Table 3: Percentage of Post Graduate students of IDOL in Internet utilization

| Gender | N | Count | Percentage(%) |
|--------|-----|-------|---------------|
| Male | 100 | 68 | 68 |
| Female | 100 | 48 | 48 |
| Total | 200 | 116 | 58 |

Table 4: Percentage of level of utilization of computer by post graduate students of IDOL

| Level of Utilization | Male | Female | Total |
|----------------------|------|--------|-------|
| Regular | 45 % | 25% | 35% |
| Occasional | 37% | 40% | 38.5% |
| Rare | 11% | 22% | 16.5% |
| Never | 7% | 13% | 10% |
| Total | 100 | 100 | 100 |

Table 5: Percentage of level of Utilisation of Internet by Post Graduate students of IDOL

| Level of Utilisation | Male | Female | Total |
|----------------------|------|--------|-------|
| Regular | 54 % | 34% | 44% |
| Occasional | 24% | 36% | 30% |
| Rare | 15% | 20% | 17.5% |
| Never | 7% | 10% | 8.5% |
| Total | 100 | 100 | 100 |

Table 6: Percentage of Purposes of utilization of computers by the sample students

| Source | count | Percentage (%) |
|---------------------------|-------|----------------|
| Storing reading materials | 98 | 49 |
| Personal Data keeping | 112 | 56 |
| Educational CD usage | 80 | 40 |
| Assignment preparation | 134 | 67 |
| Internet | 114 | 57 |
| Games | 140 | 42 |
| Movies | 162 | 81 |
| Music | 145 | 72.5 |
| Calculations | 97 | 28.5 |

Table 7: Percentage of Purposes of utilization of Internet by the sample students

| Source | count | Percentage (%) |
|----------------------------|-------|----------------|
| Reference materials | 110 | 55 |
| Distance learning | 147 | 73.5 |
| News | 70 | 35 |
| Career guidance | 78 | 39 |
| On –line shopping services | 117 | 58.5 |
| Mail | 112 | 56 |
| Movies | 98 | 49 |
| Music | 86 | 44.5 |
| Chat | 145 | 72.5 |

Table 8: Obstacles faced by the post graduate students of IDOL in using computer and internet

| Obstacle | count | Percentage (%) |
|---|-------|----------------|
| Ignorance of effective use of computer & Internet | 115 | 57.5 |
| Lack of Infrastructure facilities | 123 | 61.5 |
| Non availability of computer | 54 | 27 |
| Higher cost | 110 | 55 |
| Lack of networking system | 82 | 41 |
| Difficulty in using hardware and software | 96 | 48 |
| Lack of teacher support | 76 | 38 |
| Lack of encouragement | 86 | 43 |
| Lack of discussion forum | 89 | 44.5 |
| Lack of motivation & enjoyment | 80 | 40 |
| Lack of information handling skills | 98 | 49 |
| Lack of technical assistance | 76 | 38 |

From Table-1 it is evident that all the sample students have given positive responses regarding availability of OHP, Radio use, Use of mobile, Digital Library and Internet. Response regarding availability of Generic software is only 1%. All the students have given negative responses regarding availability of virtual classroom. Majority of the respondents (82.5%) said in affirmative regarding usage of CD, pen drive etc. Responses regarding availability of Intranet facility are less in comparison to the Internet facility.

Table-3 reveals that out of the total 200 sample 59.5 % of the sample students use computer. 68% of male students are using computers while less than half (48%) of the female students are using computer. The number of female users is less in comparison to their male counterparts. Hence digital divide is present between the male and female students.

Table-2 shows that more than half of the students use Internet. The percentage of male students is more in Internet using than that of the female students.

From Table-4 and it is clear that among the different categories, the percentage is highest in the occasional use. In the regular category the percentage of male users is more than that of female users. Only 25% of the female students use computer regularly. Female students' concentration is more in the occasional use category. In the never category female students are ahead of the of the male students. Among the sample students occasional user of computer is more in comparison to other category and male students use computer more frequently than those of female students.

Table-5 shows that concentration of students' response is more in the level regular use. Among the sample students the percentage of male regular users is more than that of female regular users .In the occasional category, rare category and never category the percentage of female students is more.

Regarding the purposes of utilization of computers (see Table-6) it is seen that students are using computer mostly for movies and it is followed by hearing of music. 67% of students use computer for assignment preparation. Less than half (40 %) of the students use Computer for Educational CD usage. More than half (57%) of students are using computers for Internet use .Percentage of students using computer for personal data keeping is 56%.Only a few(28.5%) students use computer for calculations .

Students are using Internet mostly for Distance learning followed by chatting. It is followed by on-line shopping and services. Next to it collection of reference material. The percentage of students using computer for news is meager (35%). Percentage of students using computer for career guidance is also not at all encouraging (see Table -7).

Table-8 reveals that lack of infrastructure facilities acted as an obstacle for a major portion of the students(61.5%) . Ignorance acted as an obstacle for more than half of the students(57.5 %).Next to it is the higher cost. Lack of networking system acted as an obstacle for 41 percent. Non availability of computer acted as an obstacle for a few students (27 %). Difficulty in using hardware and software is another obstacle for 48 percent. Lack of encouragement acted as an obstacle for 43 percent. Lack of motivation is also another obstacle and the percentage of students response here, is 40 percent. Lack of information handling skill acted as an obstacle for 49 percent. Lack of teacher support is another obstacle for 38 percent.

8. Findings

- (i) Students are using mostly the OHP, Radio , mobile, Digital Library , Computer and Internet, followed by use of pen drive , CD and mini – disk. Next to it the use of Laptop, followed by intranet.
- (ii) Responses showed the absence of virtual classroom.
- (iii) The percentage of computer users is not encouraging. Digital divide is present between the male and female students.

(iv) In the level of computer utilization the male students are dominating in the regular category i.e. they use computer regularly. Whereas the percentage of female students are more in the occasional and never category. Presence of students in the never category is an alarming sign and total number of regular users among the sample students are not encouraging.

(v) The total percentage, male and female students as a whole, is not found encouraging in Internet utilization. The percentage of female Internet users is not satisfactory as compared to that of male users.

(vi) There is not much difference in the percentage of computer usage and Internet usage of the post graduate students of IDOL.

(vii) The post graduate students of IDOL are not using computer solely for educational purpose rather they are using the machine mostly for activities like music and movies. However, the percentage of use of computer for assignment preparation is not upsetting.

(viii) The students use internet mostly for educational purpose. But the percentage of students engaged in chatting is also high. Percentage of reference material collection is not up to mark.

(ix) Different obstacles are there in the way of using Computer and Internet out of which lack of infrastructure facility comes first followed by ignorance of effective use of computer and internet.

9. Some suggestions

(i) Allocation of funds for higher education for using ICT by the Government through its budgetary resources for the improvement of infrastructure facilities.

(ii) Creation of computer laboratories in educational institutions.

(iii) Adaptation of Basic computer skills should be a part of study.

(iv) Teaching staff should be trained up properly for computer application.

(v) Establish network of higher educational institutions.

(vi) Development of curriculum for e-learning.

(vii) Provision of virtual classroom to make distance education viable.

(viii) Removal of digital divide, start computer education for all.

(ix) Evaluation of course work, homework or class work through e-mails, delivery dialogue and feedback over internet.

(x) Access to computer and internet.

(xi) Information sharing.

10. Conclusions

ICT has the potential to enhance the teaching learning situation. More particularly it can lead the distance education system to a new height. With the help of ICT teaching community can reach the students of remote areas and learners are able to access quality education from anywhere at any time. The teaching community should use ICT which will encourage the students also to use the same. Only through Information and Communication technology the world can meet the challenges of education in the globalised world.

References

1. Bhattacharya, I & Sharma, K. (2007), "India in the knowledge economy – an electronic Paradigm" *International Journal of Educational Management*, Vol . 21 (6) pp. 543-568.
2. Lim, C.P. & Chai, C. S. (2004), "An activity – theoretical approach to research of ICT integration in Singapore schools : Orienting activities and learner autonomy", *Computers & Education* 43(3), 215-236.
3. McGorry, S.Y. (2002), "Online, but on target? Internet- based MBA courses : A Case Study", *The Internet and Higher Education* 5(2), 167-175.
4. UNESCO, (2002), "Open and Distance Learning Trends, Policy and Strategy Considerations".

INSTRUCTIONS TO AUTHORS

Submission of Papers

The papers should be submitted to the editorial office in electronic form (a diskette or e-mail) to the address zurnal43@yahoo.com, japmnt@yahoo.com, with a note "for the journal". Only papers that have not been previously published or offered for publication elsewhere can be accepted, as well as those which meet the scientific criteria of the Editors.

Writing the Paper

The first page should indicate the title, academic degree, the first name, initial(s), and surname of each author followed by his or her department, institution, city with postcode, and country. The fax, telephone number and Email address of the corresponding author should also be provided. (Font 10); the left block. If the paper has more than one author, each author should be given all the information contained herein.

The title should include the main idea of the paper. It is written in the middle, upper case letters (font size 12) and in bold-face. Abbreviations should not be used in the title. Subtitles are written in the middle, lower-case letters, in bold-face and numbered in Arabic numerals.

The abstract should contain from 100 to 250 words (font 10) and should include concisely specified facts, and summarize the illustrated procedures and methods of work performance. The abstract should not contain any undefined abbreviations or unspecified references. Citing references in the abstract is to be avoided.

Keywords should specify up to 10 (font 10) in italics, and should indicate the main research problem.

Text Formatting

The text should be submitted in MS Word formatted in two columns. All pages of the main text should be numbered. The work should not be less than 5 and more than 10 pages of basic text on page A4.

Papers should be submitted in Serbian and/or English.

Citation should be given in the text, in parentheses. It should not be formatted as footnotes. Footnotes should be used, if necessary, for comment and additional text.

Author's surname in brackets, when using Harvard style citation, should also be written in the original language and script. Certain words and phrases can be, for scientific and professional needs, written in the original language and script. The names of foreign authors in the text are listed in the transcription of the first reference to the author or the source stating the name of the original author in parentheses. In the next reference to the same author, only a transcription should be mentioned. Citation within an article should state the author's name and the year of publication of the source, for example (Trajkovic, 2010). Specifying more than one author in brackets should be arranged alphabetically, not chronologically. If there are two authors, both are cited in brackets. If there are more than two authors, only the surname of the first author and the abbreviation et al are used in brackets.

Tables

All tables should be on separate pages and accompanied by a title and footnotes where necessary. They should only illustrate data that are directly relevant to the thesis of the paper. The tables should be numbered consecutively using Arabic numerals. For each table, the title should be indicated. The title should reflect the essence of the data in the table indicating the given variables or the most significant relations among the data. If it illustrates the published material, its original source should be given in the form of a reference at the end of the table. Avoid overcrowding the tables and the excessive use of words. Titles, page numbers should be placed above the table so that the space under the table for the legend remains. Notes are placed under the table, and the words legend or notes are written in italics. APA follows the rule that vertical lines should be removed from the tables and only the most

necessary of the horizontal ones should be retained.

Figures and illustrations

Figures and illustrations should have legend captions that accompany the illustration. They should uphold rather than duplicate the text, they should be easy to read, easy to understand and they should denote only the essential facts. The lines should be clean and simple. The curve and line graphs and outside edges of columns should be thicker than the lines of the coordinate system. The material should be scanned to record at least 300 dpi resolutions, and it is desirable to be of 600-1200 dpi. They should be stored in the Text Box in Word because it is lighter in page layout when printing. Figures and illustrations are numbered consecutively by category to which they belong.

Citing references in the text

According to APA standards, the basic principle of citation in the plain text is "one author, one word". If there is more than one author, it is enough to mention the first one and point out that the author worked with associates, and then add the date of publication. With the author's name it is enough to mention only a year, and not the page, if the text is not directly quoted or does not include information which should be linked to the page. When a paper has two authors, always cite both names and years of birth, and surnames with a conjunction between them. If there are three, four or five authors, always first list all the names, and then just write the name of the first and add "et al". When a paper has six or more authors, cite only the first author in the plain text and then add text and "associates".

Reference

List of references (font 10) should only contain works that are cited in the text, which have been published or accepted for publication. The list of references should not contain any source that is not used in the paper. Headlines of foreign publications should be given with an initial capital letter while the rest is in lowercase letters. If the paper has a subtitle, it is separated from the title by two points, and begins with a capital letter.

The list of references at the end of the paper is to be given in alphabetical order according to APA standards and follow the principle "author - publication year":

The bibliographic unit should contain the last name and initials, the year of publication, the title of the book (in italics), the place of publication and the publisher, for example:

Trajkovic, P. (2010): Management, Vranje, Mapro

An article in a journal should include the last name and initials of the author, the year of publication in parentheses, the title of the paper, full name of the journal (in italics), volume (in italics) and the page.

The names of journals in English are written with initial capital letters of the words, except for conjunctions.

When it comes to the web document, we should write the author's name, year, document title (in italics), the date the site was visited and the Internet address of the website, for example:

If one author is stated several times, the year of reference is to be followed. If several papers by the same author in the same year are stated, they should be marked with letters a, b, c: (1997a, 1997b).

Acknowledgments

This section includes appreciation, recognition of a number of people who contributed to the realization of the paper or the organization that provided financial support for the project.

Evaluation of submitted papers

All the papers having been reviewed and ranked, the editorial staff makes a decision whether they will be published or not. Based on the review, the editor decides on the acceptance and publication of the paper, and then informs the author. Attachments, floppy disks or CDs will not be returned or paid for. Papers that are not submitted in accordance with these propositions will not be considered for publication.

IMPRESUM

JOURNAL OF PROCES MANAGEMENT – NEW TECHNOLOGIES, INTERNATIONAL

First edition, 2013.

Editor:

Prof. Predrag Trajković PhD

Publisher:

Mapro Predrag Trajković KD, Vranje

Technical editors:

PhD Lazar Stošić

MSc Ana Kostić Stošić

Lector:

Maja Mihajlović

Ana Stanković

CIP – Katalogizacija u publikaciji

Narodna biblioteka Srbije, Beograd

005

JOURNAL of Process Management. New Technologies = Menadžment proces. Nove tehnologije: international / glavni urednik Predrag Trajković. – Vol. 1, issue 1 (jan. 2013)- . – Vranje : Mapro, 2013- Vranje : Plutos). – 30 cm

Tromesečno. – Varijantni naslov: Journal of Process Management. New Technologies International. – Tekst na engl. jeziku
ISSN 2334-735X (Print) ;
ISSN 2334 7449 (Online) ;
= Journal of ProcessManagement.
New Technologies
COBISS.SR-ID 196683532

Published and printed by:



ISSN 2334-735X



9 772334 735002