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Simpozion Științific Internațional al Tinerilor Cercetători (27-28 aprilie 2018)

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PREZENRĂRI ÎN PLEN

COMPARATIVE ANALYSIS OF THE FOODSERVICE MARKET IN CHISINAU AND OTHER COUNTRIES

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Abstract. In this article carried out a comparative analysis of the current state of the market for commercial and social food services in Chisinau and other countries such as Romania, Russia, USA, Great Britain and Canada. The study also contains a research on the number of meals taken outside the house, and the average cost for food in these respective countries. Another implemented analysis is regarding the overall satisfaction of the population in Chisinau and other countries with available places in food units and a comparison is made to the average insurance standard with available places according to the Norms and Regulations of construction.

Keywords: market, food service, costs, meals outside the house.

JEL CLASSIFICATION: L83, M10.

The purpose of the foodservice market is to fully satisfy the needs of the population in rational nutrition at work, place of study or in other conditions. This can be done by improving on a scientific and technical basis the production and organization of culinary products consumption in order to achieve a new qualitative level of the population well-being.

The interest in nutrition in general and particularly in the food sector, in the Republic of Moldova and all around the world is steadily increasing. More and more people prefer to eat outside the house or at home by resorting to the supply of units through the delivery service.

Currently, the food service market represents all economic units of different formats and directions which are designed for the most varied consumer preferences.

The article aims to create a comparative analysis of the food service market in the Republic of Moldova to other countries. The study strives for the determination of the quantitative indicators of the market, the segmentation of the market and the description of its structure, the comparative analysis of the main indicators, such as the number of meals taken outside the house, costs for food services, the volume of sales from the food services market in the Republic of Moldova and other countries.

The methodological basis of the research is the systematic and structural analysis. Methods such as qualitative and quantitative data analysis, synthesis, comparison, and statistical methods were used in the research. The results obtained while using the nominated methods allow us to represent the quantitative indicators in the form of tables, graphs, diagrams.

The information base of the study includes statistical and analytical reporting data and reports, in particular, the materials of the National Statistical Office of the Republic of Moldova and the General Direction of Commerce, Food and Services of the Chisinau Municipal Council.

The food service market in Chisinau is characterized by the following distinctive features:

- Consists of independent economic units with specific functions (restaurants, cafeterias, cafes, bars, etc.) as well as units with similar profiles belonging to commercial enterprises, hotels or other independent commercial establishments;
- It is inhomogeneous and meets the requirements of different categories of consumers according to criteria such as: income level, age, sex, social status, interests, etc.;

Although the value of the foodservice market has increased significantly in recent years, the Republic of Moldova is well below the European average in terms of food costs for out-of-home food. Household expenditure for food service services out of total expenditure is shown in Table 1.

Table 1. Expenditure of households in the Republic of Moldova

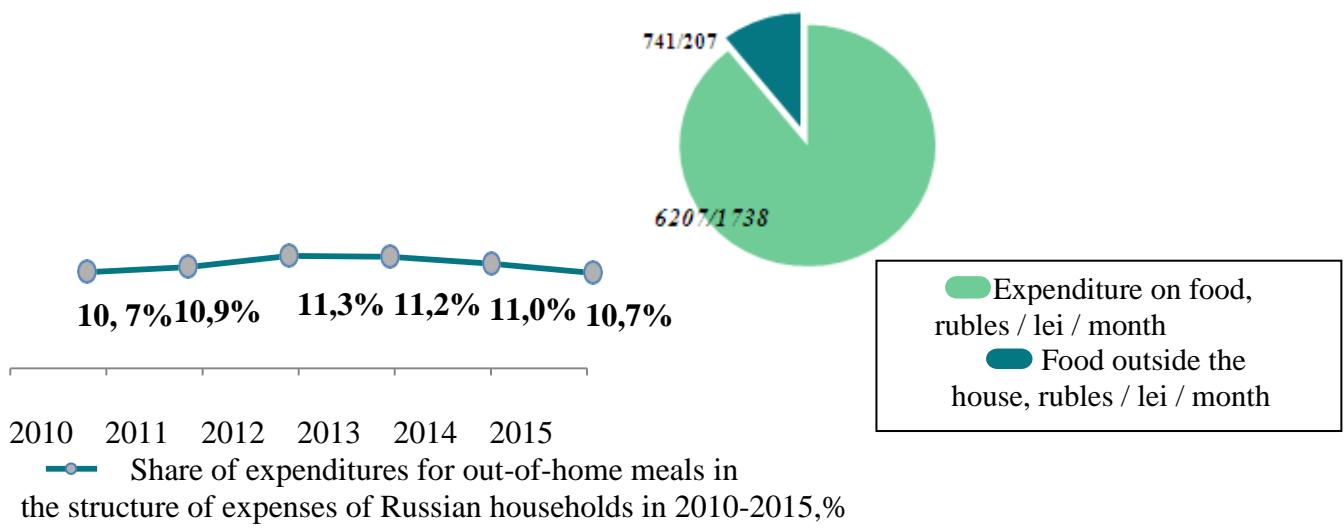
| Years | 2011 | 2012 | 2013 | 2014 |
|---|------|------|------|------|
| Including: Hotels, restaurants, cafes etc., % | 1,9 | 1,7 | 1,5 | 1,5 |
| Food, % | 42,5 | 43,2 | 42,8 | 43,8 |
| Alcoholic beverages, tobacco, % | 1,8 | 1,7 | 1,5 | 1,3 |

Source: written by the author on [5]

When analyzing the second row of the table, it can be noticed that a Moldovan spent 43.8% in 2014, which represents 795 lei per month, and 1.5% for meals taken outside the house, which is 27.25 lei per month. For comparison, in Romania, an average family consumes about 10% of its spending on products and services outside the home. In Europe, a family spends 30% for out-of-home services. In contrast to Europeans, Americans allocate 50%, and in Asia, more precisely in Hong Kong, a resident consumes two of three meals in the city. [3].

In the Russian Federation, average consumer spending for *meals taken outside the house* is amounted to about 162 lei in 2006, reaching 200 lei in 2016, decreasing compared to 2015 by 12.6%.

The dynamics of the expenditure ratio for out-of-home food cost in the structure of expenditure of Russian households in 2010-2015,% is shown in Figure 1.



Another important indicator is the volume of revenue and sales revenue dynamics, which reflect the growth and development of the food service market. Next, we will compare the key-indicators for food services market of the US, Canada, Germany, UK and Russia for 2014.

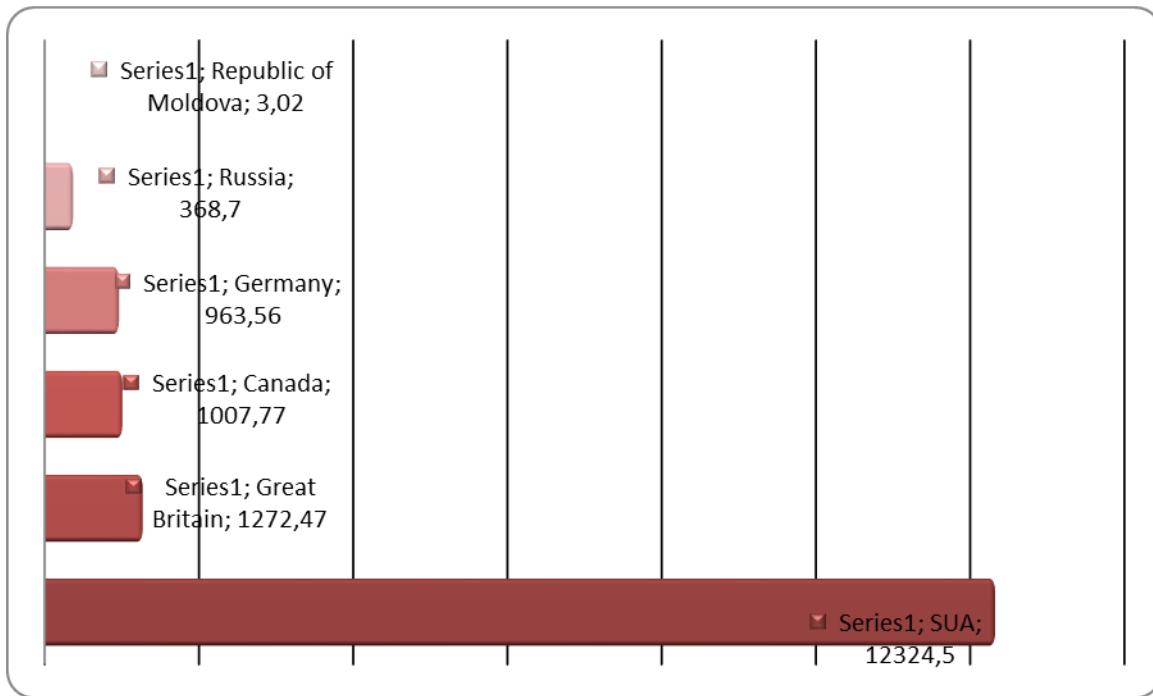
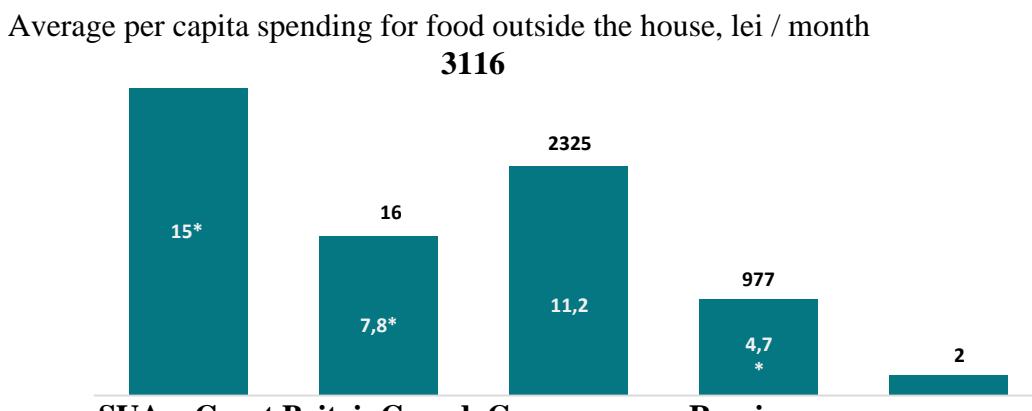


Figure 2. Income from sales of the food service market, mlrd. Lei
Source: written by the author on [3], [5].

Among the countries with the largest income from the activity of economic units providing food services is the USA, followed by Great Britain, Canada and Germany. The sales volume of the respective market in the Republic of Moldova in 2014 was amounted to only 3, 02 billion. lei, which was increased compared to 2013 by 7%. [3], [5].

The Romanian foodservice market in 2008 had an estimated volume of 1100 thousand meals taken out-of-home totaling 11.4 billion ron. In relation to the total number of inhabitants, the dates show that each Romanian took on average of 50 tables outside the house, spending 156 euros, which is about 3200 Moldovan lei.

Another not less important indicator that characterizes the food service market is average per capita spending for dining outside the house, which is shown in the diagram below.



*Source: /РБК.research, Министерство сельского хозяйства США, Росстат, NPD Group и др.,
 * - how many times a citizen spends more in those countries compared to a citizen]*

Average expenditures for food services in the Republic of Moldova, the EU and other countries are shown in Table 2.

Table 2. Average expenses for food services

| Indicator | U.M | U.E | Romania | Republic of Moldova |
|----------------------------------|------------------|----------|---------|---------------------|
| Average spending on food service | €/ resident/year | 492÷1010 | 156 | 1,25 |

Source: written by the author on [3], [5].

The foodservice market in Chisinau on January 1, 2017 consisted of 1867 food units with 132730 available seats. The distribution by unit type over the period 2010-2017 is shown in Table 3.

Table 3. Distribution of public catering units in Chisinau municipality by types

| Years | 01.2010 | 01.2011 | 01.2012 | 01.2013 | 01.2014 | 01.2015 | 01.2016 | 01.2017 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| P.C.U., total | 1719 | 1626 | 1654 | 1750 | 1846 | 1824 | 1849 | 1867 |
| 1. Catering complexes | 37 | 39 | 37 | 44 | 49 | 49 | 51 | 47 |
| 2. Banquet hall | 4 | 6 | 7 | 8 | 8 | 9 | 11 | 14 |
| 3. Restaurants | 64 | 69 | 75 | 71 | 69 | 65 | 63 | 64 |
| 4. Cafenele | 505 | 487 | 476 | 548 | 597 | 582 | 591 | 589 |
| 5. Canteens | 271 | 268 | 273 | 283 | 296 | 291 | 286 | 296 |
| 6. Buffets | 442 | 408 | 426 | 417 | 415 | 397 | 374 | 386 |
| 7. Bars | 318 | 280 | 295 | 313 | 339 | 324 | 328 | 304 |
| 8. Stores of culinary items, confectionery | 5 | 4 | 5 | 9 | 10 | 20 | 15 | 13 |
| 9. Cafenele și terase de vară | 73 | 65 | 60 | 57 | 63 | 87 | 130 | 154 |

Source: [Report on the activity of the General Direction for Trade, Food and Services for 2016].

The foodservice market in the Republic of Moldova, as well as the market for these services around the world consists of two parts:

1. Closed network (social services), which includes enterprises serving a certain amount of consumers (employees, workers, pupils, students, sick people, etc.), such as businesses and institutions in the areas shown in Figure 3.
2. The open network (commercial food services) according to the Type Nomenclature of the public catering establishments is represented by the various units shown in Figure 3. [1]

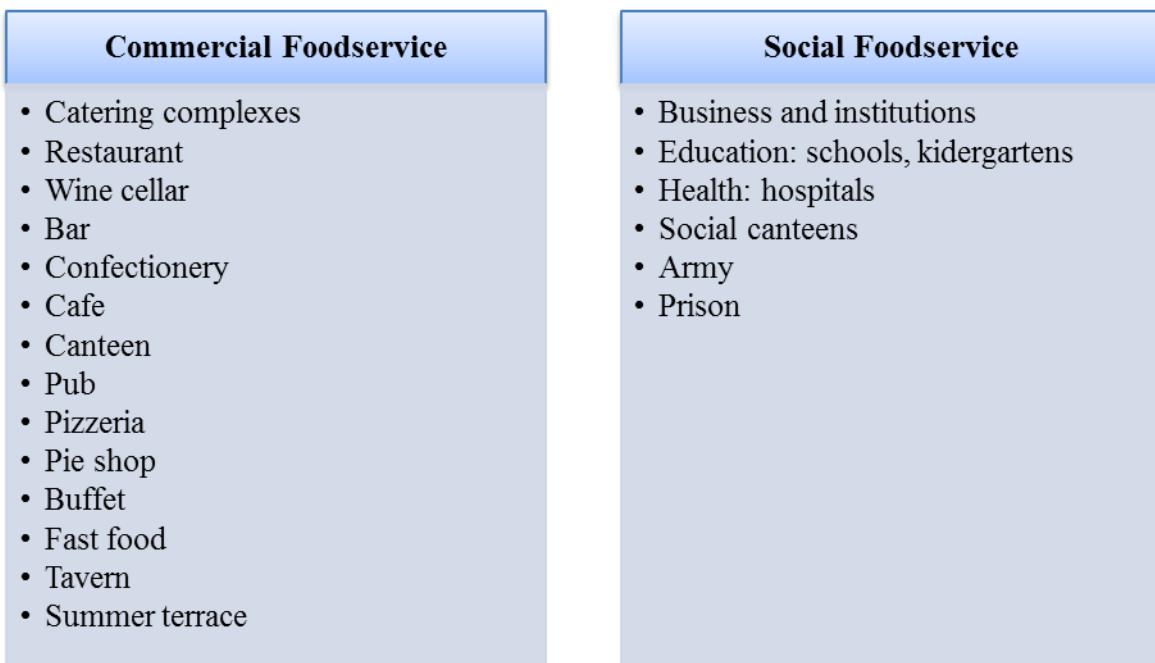


Figure 3. Food Service Market Components

Source: written by the author

According to the data in Table 3, it may be deducted that the largest share in the structure of the market for commercial food services in Chisinau was on 01.01.2017. It was owned by the following categories: cafes - 31, 5%, bars - 16,3%, summer terraces - 7%, restaurants - 3,5% followed by catering establishments -2.5% and catering for events and parties by 7.5%. The market for social food is dominated by the category of buffets (21%), followed by canteens (16%). In Romania, the largest share in the catering market was held by the fast service restaurant category with 42, 5%, followed by restaurants, by 35%, then by hotels and other accommodation units, by 18.5%, the last two positions being 3.5% catering and travel services, and 0.5% catering and event catering. With regard to social catering, the study indicates that most of the food service structures in this category are outdated.

The social catering market is dominated by the Business / Institutions category (40%), followed by health (23%), education (20%), social canteens (13%) and prisons / army (4%) . The study also shows that despite the gap with the rest of Europe due to the favorable economic situation in Romania, the food service market has seen a rapid increase in the commercial catering category as well as the Business / Institutions sector.

In the social catering category, the number of meals taken by Romanians in this system was 27 per capita per year, compared to France - 57 or Poland - 46. As for the commercial catering, the number of meals served in the city amounts to 23 per capita per inhabitant per year, compared to 60 in France and Poland.

Romanians mostly ate at fast-food eating places 17 times a year, compared to restaurants, where they only reached 2 times a year. The French eat at the restaurant 21 times a year, and at fast food places , 27 times a year. Polish people are big amateurs of fast food, 41 meals a year, compared to 17 meals at the restaurant. [6].

The analysis of the data shows that the commercial and social food market in Chișinău, Romania and Russia are roughly equal, with the neighboring country returning 1% more to the social segment, and in Russia 6% to the commercial segment. (Figure 4).

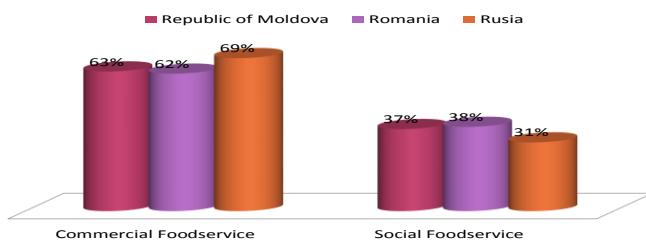


Figure 4. Foodservice market in Chișinău, Romania and Russia

Source: elaborated by the author on [4], [6]

The foodservice market may also be characterized by the indicator that expresses the available places in the free access network of companies with the number of inhabitants. According to the current norms for cities with a population of 500 - 1000 thousand people, this indicator is 40 seats per 1000 inhabitants. [2]. The provision of the population in Chisinau with seats in the open access network is shown in Table 5.

Table 5. Ensuring with available places on 01.01.2017 in the open access network of Chisinau city

| Sectors | Number of seats in the open access network | Population, thousands of inhabitants | Number of seats per 1000 inhabitants |
|-----------------|--|--------------------------------------|--------------------------------------|
| Botanica | 18876 | 172,90 | 109 |
| Buiucani | 18420 | 112,10 | 164 |
| Râșcani | 20852 | 139,80 | 149 |
| Center | 22770 | 95,00 | 240 |
| Ciocana | 9955 | 119,10 | 84 |
| Total | 90873 | 638,90 | 142 |

Source: [Report on the activity of the General Direction for Trade, Food and Services for 2016; <http://www.statistica.md/newsview.php?l=ro&idc=168&id=4120&parent=0>]

The analysis shows that the population of Chisinau is secured with places in the commercial enterprise network and exceeds the normative level. Thus, most places per 1000 inhabitants belong to the Centru sector, with 240 seats, which exceeds the norm by 6 times, followed by the Buiucani sector with 164 seats, which exceeds the norm by 4 times, and in Ciocana sector there are 80 seats at 1000 inhabitants, exceeding the norm twice.

So the commercial food market in the city of Chisinau is saturated and the economic units lack customers. For comparison, the insurance was also analyzed with seats in other cities. Consequently, in Paris can be observed 159 seats return per 1000 inhabitants, in Sankt Peterburg – 90 and in Prague -110. (Figure 5).

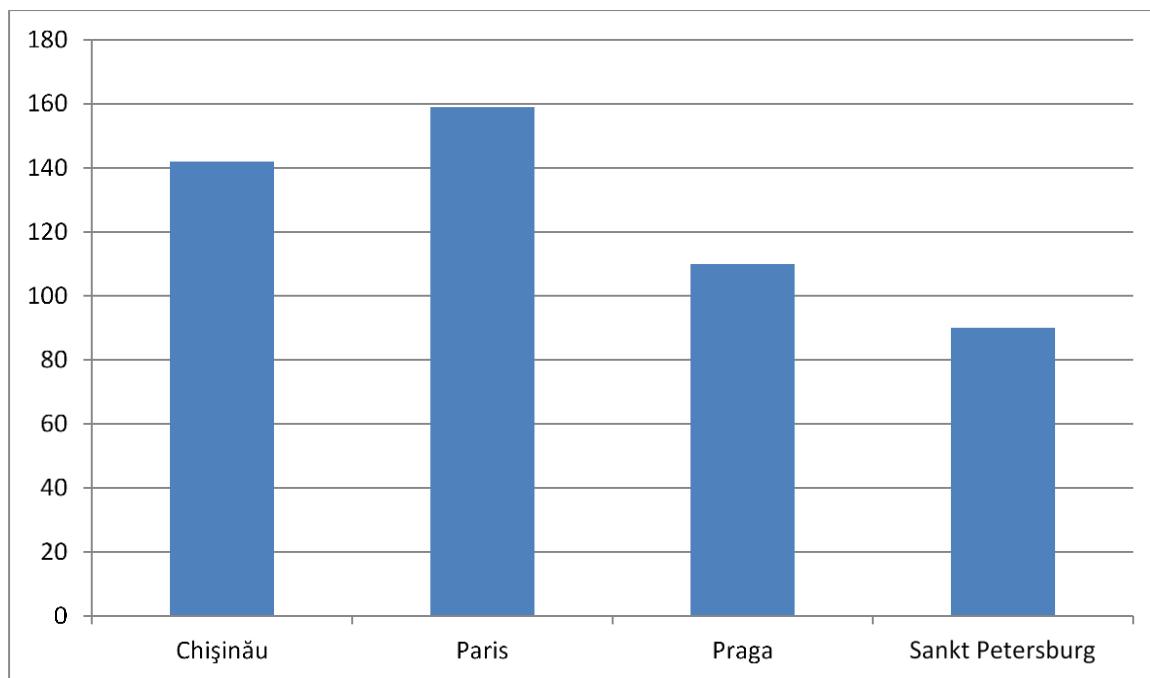


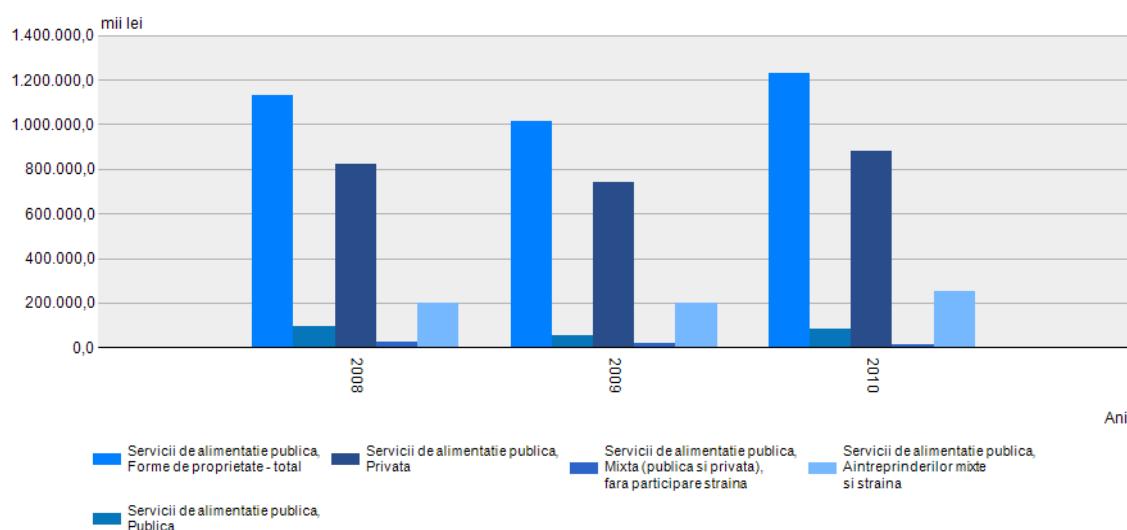
Figure 5. Ensuring places in free access nets in Chisinau and other cities

Source: written by the author on [3], [4].

The analyzed indicator allows some important provisions to be set regarding the level of competitiveness. Analysts in the field assert that the critical value of securing the population with places in a specific locality is equal to 50%.

If this indicator is below, there is practically no competition, and if the value of this indicator varies within 50-70%, competition already exists. When the value of the indicator falls within the limits of 70-80%, the so-called transaction period is observed, accompanied by restructuring regarding customer attitudes, enterprise management and other aspects of activity.

The critical point for seat insurance is 80%, then it is necessary to fight for each client, to ensure a modern, strategic management system. According to the ownership form, the unions are grouped as follows: 75% - private, 7% - in the form of public ownership and 18% in the form of mixed ownership with and without foreign participation. (Figure 6).



Source: [National Statistical Office].

It demonstrates that the term "public nutrition" is outdated and should be replaced by "commercial or social foodservice", which is used in most countries.

In conclusion, we note:

1. The food services market is significant, accounting for 5,7% of total services in 2004, reaching 15,3% in 2013, followed by a fall to 13,3% in 2014 due to the economic downturn in the country.

2. The market is divided into two main categories: commercial food services (restaurants, fast food, cafes, bars, hotels and other locations) and social food services (business & institutions, education, health-hospitals, social, other sectors - military, penitent).

3. It is diversified by type of units, the biggest share in the commercial sector is in the cafes - 38%, and in the social boutiques - 21%.

4. According to the ownership form, the most significant part belongs to the private economic units - 75%, and to the public only 7%, which means that the term "public nutrition" is exceeded and should be replaced by the term "food services".

5. The market is inhomogeneous and meets the requirements of different categories of consumers according to criteria such as income level, age, sex, social status, interests, etc.

6. The commercial food service sector in the Republic of Moldova may be considered a young market compared to other European countries at the beginning of the development stage.

7. The development of any market, including food service, is influenced by many factors, both internal and external. The main factors influencing the development of the food service market in the Republic of Moldova are the country's economic development, inflation, fiscal policy and the mentality of the population.

8. After the amount of the check, the market can be divided into 3 segments:

- *Fast service, (average check 25-50 lei) canteens, buffets, confectionery -38%;*
- *Average price (average check 50-150 lei) cafes, bars, summer terraces - 57%;*
- *Expensive (average 300-400 check) restaurants, festivities - 5%.*

9. The number of seats available in free access units per 1000 inhabitants exceeds several cities in the world, therefore the market is saturated.

BIBLIOGRAPHY:

1. The Government Decision of the Republic of Moldova On the provision of public catering services no. 1209 of 08.11.2007.In: The Official Monitor of the Republic of Moldova, 2007, no.180-183, art.1281.
2. СНиП 2.07.01-89. Planning and development of cities, double settlements mentions . Design standards.
3. The Russian network market for catering 2016. Analytical review 7th edition.
4. http://comert.chisinau.md/public/files/rapoarte/2014/Raport_de_activitate_2014. 2.
5. <http://www.statistica.md/newsview.php?l=ro&idc=168&id=4120&parent=0> (accessed on 03.12.2017).
6. <https://www.slideshare.net/fanarumihai/56652120-analizapieteiproduselorfastfood> (accessed on 18.08.2017).

RISKS AND THREATS TO THE SECURITY OF THE REPUBLIC OF MOLDOVA IN THE CONTEXT OF ORGANIZED CROSS-BORDER CRIME IN THE BALKANS

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Abstract. The work "Risks and threats to the security of the Republic of Moldova in the context of organized cross-border crime in the Balkans" will represent a thorough study of the risks to national security through the analysis of organized crime in the Balkan states and in the context of various regional organizations of which the Republic of Moldova is part of, and is meant to combat, the phenomenon of organized cross-border crime.

Thus, the study itself will analyze the activity of the Republic of Moldova in the regional / international organizations of which it is a permanent member/observer or other statute aimed at combating organized crime in general but also protecting the interests related to the security of a state.

Taking into account the specificity of the subject and the topics addressed, it is considered relevant to study and analyze the following organizations: the Salzburg Forum, Europol, Frontex, the International Center for Migration Policy Development, Interpol, the South-East Law Enforcement Center, The Convention on Police Cooperation in South East Europe, the Brdo Process.

In this respect, the activity of these entities will be closely monitored in countering the criminal phenomenon, especially in the Balkan area, as well as their impact on the interests and protection of the security of the Republic of Moldova.

Key words: Balkans, irregular migration, security, Republic of Moldova, cross-border crime.

JEL CLASSIFICATION: Y2

INTRODUCTION.

"The international environment is a hobbesian world of competition, where there is no central authority to impose order. [...] As a generic term, the security of a state refers, first of all, to threats from the outside."¹

The idea of international security and its practical realization is determined by historical, economic, political, social, and other factors. Originating with the formation of the state institution, the question of international security has historically been linked to the issue of war and peace. Security is no longer directly related to the preoccupation of states to protect individuals against classical aggressions - military aggression and wars - but also to the need for governments and heads of state to find solutions that lead to prosperity, democratic development and protection of human rights.²

In recent years, more cross-border organized crime research has been closely linked to the Central and West European market, analyzing a range of factors, including human trafficking, drugs and other types of smuggling. At the same time, research has been conducted on opiate trafficking from Afghanistan via Central Asia, along the so-called Nordic Route and the Balkan Route.

According to lit. a), para. 2 of the United Nations Convention against Transnational Organized Crime, the organized criminal group is a structured group made up of three or more persons who have been for a certain period of time and are acting in concert for the purpose of committing one or more serious offenses or offenses Convention to obtain, directly or indirectly, a financial advantage or other material advantage.

Despite the efforts made through this research, the high degree of risk posed by organized cross-border crime across borders and the Eastern European region is still not fully accepted.

¹ Miroiu Andrei, Ungureanu Radu Sebastian, *Manual de relații internaționale*, Ed. Polirom, Iași, 2006, p.181.

² Hlihor Constantin, *Politica de securitate în mediul internațional contemporan: domeniul energetic*, Vol.I , Institutul European, Iași, 2008, p.21

According to the serious and organized crime threat assessment report for the European Union for 2017 (SOCTA 2017), more than a third of the EU's criminal clusters are involved in the production, trafficking or distribution of drugs, trafficking in human beings, illegal migration.³ In general, the following are the Balkan countries: Albania, Bosnia and Herzegovina, Bulgaria, Greece, Montenegro, the Republic of Macedonia, Serbia, Croatia, Slovenia, Romania. The context of serious and organized crime in the EU is fundamentally influenced by the geopolitical situation in and around the EU. The impact of conflicts in states on the periphery of the EU (such as Syria or Libya) continues to influence organized crime within the European community. Poverty and armed conflicts are the decisive factors that cause migrants to come to Europe.

Afghanistan's heroin is trafficked to Russia through the Caucasus and Turkey, but not before it passes through Belarus, Moldova and Ukraine to Central and Western Europe. Cocaine from South America is transported through the Black Sea for its later transit to EU countries.



4

National law enforcement agencies occasionally prohibit large cargoes of commercial shipping in transit through southern ports and major land transport corridors. In June 2015, a record load of 500 kilograms of heroin arriving from Turkey was confiscated while transiting Illichiovsk, near Odessa (Ukraine), headed to Western Europe.⁵ Active integration process within the Euro-Asian Customs Union (consisting of the Russian Federation, Belarus, Kazakhstan, Kyrgyzstan and Armenia) and consequently the removal of border and customs barriers and the simplification of transit goods flows between these countries, increasing threats to illicit trafficking of opiates and heroin from Afghanistan through the Balkan Route to the eastern borders of EU countries.

The geographical link between the Republic of Moldova and the Balkan states is carried out through Romania, neighboring Bulgaria and Serbia. Due to its geographical location, the Republic of Moldova is permanently exposed to risks and vulnerability for illicit trafficking in drugs, small arms, trafficking in human beings and / or human organs / tissues, as well as counterfeit medicines.

³ The EU Serious and Organized Crime Threat Assessment (SOCTA 2017), European Police Office.

⁴ Ibidem.

⁵ UNODC Partnership and Programmatic Actions in Eastern Europe in the context of UNODC Strategic Framework for 2017-2020.

The Republic of Moldova is not only transited through various illicit activities, it is also an outbreak for illegal migration and trafficking.

The risks to the national security of the Republic of Moldova determined by the operational situation in the field of migration and organized cross-border crime at regional level are:

1. the instability of the political situation in the Middle East (armed insurgency, internal conflicts, continuous flow of migrants, living conditions in existing camps in Syria's neighboring countries);
2. the situation in Turkey (Istanbul's threats of unilateral denunciation of the deal with the EU, conflicts with the Kurdish population, 3 million registered migrant Syrians, a possible relaxation of operative control measures and the fight against illegal immigration by the Turkish authorities);
3. the situation in Bulgaria (the presence in the territory of an impressive number of migrants, the involvement of the population in the border guard - the far right Vasilevski organization);
4. the situation in Serbia (the presence of a large number of migrants, the opening of the Kikinda center, etc.).

MATERIALS AND METHODS.

In the process of studying and analyzing the paper, the following research methods will be used:

1. Interviews with relevant national / international security actors (Moldovan liaison officer at EUROPOL, Head of INTERPOL Office in Moldova, Head of Center for Combating Trafficking in Human Beings of the General Police Inspectorate, Head of the Secretariat of the Convention on Police Cooperation in Southeast Europe, high-level representatives of the Geneva Center for Democratic Control of Armed Forces, Director of the Migration and Asylum Bureau of the Ministry of Internal Affairs);
2. formulation of hypotheses on the topic addressed;
3. In-depth study of the bibliography in the field;
4. Case study (Managing a crisis situation in the event of an increased influx of illegal migrants to the territory of the Republic of Moldova; The possibility of committing a terrorist attack on the territory of the Republic of Moldova, similar to those committed in France, Germany, England in 2017 by persons transit through the Balkan states).

Short-term and medium-term risks are expected to outweigh non-military risks in relation to military ones and domestic vulnerabilities and unforeseen events greatly enhance the capacity of states and the international community as a whole to respond to and counteract risks and threats to national and international security.

Taking into account the specificity of the subject and the topics addressed, it is considered relevant to study and analyze the following organizations: the Salzburg Forum, Europol, Frontex, the International Center for Migration Policy Development, Interpol, the South-East Law Enforcement Center, The Convention on Police Cooperation in South East Europe, the Brdo Process. In this respect, the activity of these entities will be closely monitored in countering the criminal phenomenon, especially in the Balkan area, as well as their impact on the interests and protection of the security of the Republic of Moldova.

For example, the Counter-Terrorism Initiative in the Western Balkans is an initiative coming from the Slovenian-led regional ministerial process of the Brdo Process⁶ and proposed at EU level by Slovenia in mid-2014, introducing an integrative and complementary approach of all external assistance (including EU) to the authorities of the Western Balkan countries in the area of preventing and combating radicalization leading to violent extremism and counter-terrorism.

The Pillar II project is a new initiative to fight organized crime in the Western Balkans in the context of the new 1.4 million euro ISF (Internal Security Fund) project for 2017-2018, which will be designed to prevent and combat crime in Europe Southeast, for the benefit of the Member States

⁶ The Brdo process is a joint regional cooperation initiative of the Austrian and Slovenian Interior Ministries, which started in 2001 and co-authored several Central and Eastern European countries.

of the Convention on Police Cooperation in South Eastern Europe⁷ and subsequently coordinated by the Convention Secretariat.

The Convention presents an international legal instrument whereby Member States (Albania, Austria, Bosnia and Herzegovina, Bulgaria, Hungary, Republic of Macedonia, Republic of Moldova, Montenegro, Romania, Serbia, Slovenia) aim to intensify and develop regional cooperation to prevent and combat organized crime cross-border threats to public order and security, risk analysis, cross-border surveillance, controlled deliveries, undercover investigations, transmission and comparison of DNA profiles, witness protection, etc.

Cooperation between the Republic of Moldova and the PCC SEE Secretariat is focused on strengthening a multilateral sustainable partnership, especially in the prevention and fight against terrorism in the regional and international context, the fight against smuggling, joint investigation teams, the fight against illicit drug trafficking, prevention and combating illegal migration, protection of personal data, the fight against counterfeit and counterfeit acts.

In the same vein, up-to-date information on the development and countering of the criminal phenomenon in the Balkan states will be used, which will be presented at ministerial meetings and expert groups of the aforementioned organizations. At the same time, a comparative analysis of the data provided by the Migration and Asylum Bureau of the Ministry of Internal Affairs regarding the migration of migrants, the General Inspectorate of the Border Police regarding the illegal crossing of the state border, the General Inspectorate of Police in the field of trafficking in human beings, illicit trafficking in drugs, the Center for International Police Cooperation of the General Police Inspectorate, alias INTERPOL (regarding illicit activity of migrants and / or citizens of the Republic of Moldova, including on the territory of other states) Information and Security on Combating Terrorism.

CONCLUSIONS.

For a long time the world has been dominated by religious and philosophical ideas in the field of security. Aristotle and Plato considered that the security of individuals must be ensured by the state, by controlling social life, in order to ensure common justice and well-being.⁸ As for the idea of a relationship between the moral components of peace and war, Machiavelli also finds the idea that war is a crime, and peace hangs on it. Security as an absence of threats, thanks to the philosophical views of Thomas Hobbes, Jean Jacques Rousseau, Baruch Spinoza, Friedrich Hegel, has easily entered the political and scientific elites of the European states. One of the first thinkers who not only pleaded for peace, but also demonstrated his imminence was Immanuel Kant, who in his treaty "Perpetual Peace" (which became a manifestation against the military forces) warned that the war would lead to eternal peace only on the background of a great cemetery of humanity.⁹

The Republic of Moldova has successfully accomplished the benchmarks of the Moldova-European Union Action Plan on visa liberalization (VLAP) and has signed the Association Agreement (AA) and the Deep and Comprehensive Free Trade Area between the Republic of Moldova and European Union (DCFTA) on June 27, 2014. All these were aimed at improving state border management, migration management, optimizing public order and security, and contributing to facilitating the mobility of Moldovan citizens, while ensuring public order and security, consolidating the rule of law and protecting human rights, in line with European standards and best practice in the field.

However, the global situation is very complicated in cross-border organized crime. On the agendas of all high-level meetings, issues such as: Schengen area enlargement, the ETIAS¹⁰, the

⁷ On May 5, 2006, the Convention on Police Cooperation in South-Eastern Europe was signed in Vienna, Austria, and subsequently ratified by the Republic of Moldova through Law no.5-XVI of 07.02.2008, in force since 11.07.2008.

⁸ Aristotel, *Politica*, Ed. Antet, Ploiești, 2002.

⁹ Kant Immanuel, *Perpetual peace*, Ed. Antet, Ploiești, 2002.

¹⁰ The ETIAS system is a FRONTEX priority for checking travelers from third countries who want to enter the EU and travel by car, a kind of visa for third-country nationals.

Passenger Name Record system¹¹, the EURODAC system¹² - the European fingerprint identification system enabling the user to see whether the applicant has lodged a asylum application in another EU Member State, combating cybercrime, the link between terrorism, extremism and illegal migration.

All these topics are related the Republic of Moldova not only from the perspective of the European path chosen by the state through the implemented policies, but also from the commitment made by all states in the fight against the new threats. At the same time, it is very important for the Republic of Moldova to be part of the regional cooperation platforms, in the context of intensifying the exchange of data through secure data bases, monitoring the migration along the East Mediterranean route, identifying the potential radicals infiltrated into the flows of migrants.

RESULTS AND DISCUSSIONS.

Short-term and medium-term risks are expected to outweigh non-military risks in relation to military ones and domestic vulnerabilities and unforeseen events greatly enhance the capacity of states and the international community as a whole to respond to and counteract risks and threats to national and international security.¹³

As a result of the study on the proposed theme, it is envisaged to develop an exact framework regarding the risks to the security of the Republic of Moldova in the light of the new threats in the international environment. Thus, taking into account the geographical position, the geopolitical interests of other states that target the Moldovan territory, but also the connection between terrorism, extremism and illegal migration, the real situation will be presented on the East Mediterranean route and its impact on our state, with a risk analysis carried out through the case study. Also, the efficiency of the information exchange in the region, the level of overcoming the migration crisis in the Balkans, as well as solutions for the protection of the national border will be presented.

Analyzing the real situation in 2017 in the area, we find that 140 EU terrorism acts were identified and annihilated in the first half of 2017. The Balkan route is still used by migrants to reach the destination countries. In the same context, at the Salzburg Forum Ministerial Conference (which took place from 19 to 20 June 2017 in Budapest, Hungary), which was attended by the Moldovan delegation, the EUROPOL representative referred to a number 300 people, one meets identification criteria, and over 5 million checks are carried out over a year, calling on all Member States to invite third States to develop joint operational plans to streamline the process of analyzing and systemising information .

Fighting organized cross-border crime in the Balkans will only be possible with the involvement of all States and regional organizations, as well as of EU specialized agencies, by continuously monitoring the migration route in the Western Balkans.

Despite the fact that the operational situation in the field of illegal migration in the Republic of Moldova is momentarily stable, it is also very fragile. This paper will draw attention to the links and connections between religious extremism, terrorism and illegal migration in order to effectively prevent terrorist attacks in Europe, but will also present the real situation of the influence of Balkan organized crime on the security of the Republic of Moldova.

REFERENCES:

- 1.Aristotel, *Politica*, Ed. Antet, Ploiești, 2002.

¹¹ Passenger list of third country passengers after embarkation containing all their data to make a minimum risk analysis.

¹² The verification is done by entering the identity data of the asylum seeker, after which the facial image is also introduced.

¹³ Frunzeti Teodor, Bădălan Eugen, *Forțe și tendințe în mediul de securitate european*, Ed. Academia Forțelor Terestre, Sibiu, 2003, p. 10.

- 2.Frunzeti Teodor, Bădălan Eugen, *Forțe și tendințe în mediul de securitate european*, Ed. Academia Forțelor Terestre, Sibiu, 2003.
- 3.Hlihor Constantin, *Politica de securitate în mediul internațional contemporan: domeniul energetic*, Vol.I , Institutul European, Iași, 2008.
- 4.Kant Immanuel, *Spre parcea eternă*, Ed. Antet, Ploiești, 2002.
- 5.Miroiu Andrei, Ungureanu Radu Sebastian, *Manual de relații internaționale*, Ed. Polirom, Iași, 2006.
- 6.The EU Serious and Organized Crime Threat Assessment (SOCTA 2017), European Police Office.
- 7.UNODC Partnership and Programmatic Actions in Eastern Europe in the context of UNODC Strategic Framework for 2017-2020.

SCIENTIFIC FUNDAMENTATION IN THE LAW-MAKING PROCESS IN THE REPUBLIC OF MOLDOVA

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Abstract. This article investigates the observance of the principle of scientific substantiation in the law-making process in the Republic of Moldova. The purpose of the study is to highlight methods of scientific substantiation and to describe practical solutions for improving communication between Parliament and academia.

Keywords: law, principle, science, substantiation, elaboration, methodology, culture, definition

The introduction of new legal rules into the legal system must be necessary, inevitably due to the essence of circumstances, imposed by the force of things. Adopting a new legal norm must be more appropriate and timely than not adopting it at all. A new rule must be adopted at the right time. The reason for adopting a new legal norm must be relevant and fit with the imperatives of the moment. The society needs to be in need of that regulation for its own good. The mere political will and the ensemble of the legislator's prerogatives cannot serve as an exhaustive basis for legislative intervention. Any arbitrary and unfounded legislative intervention fuels the risk of the "revolt of facts against the law", on which so cautiously we were warned by the savant Mircea Djuvara[1].

The objective circumstances requiring the adoption of a new rule of law are to be properly notified, and their incidence must be substantiated by the most appropriate scientific procedures. Thus, compliance with the principle of scientific substantiation in the law-making process implies not only an intellectual effort proclaimed as such but an action centered on the scientific methods that relate precisely to the matter. "The road to the final text of the normative act is, very often, difficult. The legislator reaches it from practice and using reasoning, for only in this way will he achieve the correlation between fact and law ", emphasizes Professor Nicolae Popa[2].

The elaboration of the legal norms in the Republic of Moldova is regulated by the Law no. 100 of December 22, 2017, regarding the normative acts. Article 3 of that law sets out the principles of law-making. Among them is not the one of scientific substantiation, while in the legal literature the postulate is mentioned primarily by the majority of the authors. At the same time, article 25 of the law mentions, among other things, the involvement of scientific institutions in the process of drafting of normative acts when research studies are required, and Article 34 also mentions scientific, economic, environmental, legal, etc. expertise, as if the latter were not scientific by nature.

In order to become a prominent, immanent and constant practice in the continuous process of law development in the Republic of Moldova, scientific substantiation would require at least two pillars. One is a national science of unified, elevated and developed lawmaking. This must not represent the product of imitation but must start first of all from the academic and institutional valorization of legal experience in the ethnogenesis space of the people of the Republic of Moldova, to take into account the spiritual and cultural identity of society. Only in this way will a beautiful legal culture rise, the lack of which is so strongly felt today. Or, unlike legal rules that can be copied, culture, including the legal one, cannot be borrowed. A society has culture, including the legal kind, only when it generates it by capitalizing on its own experiences. Otherwise, the "import" of cultural values is used, and then, even in the framework of enactment, copying practices, regulations and institutions take place. This implies the lack of vision, the inability to understand previous experiences and the void of cultural autonomy. And with the lack of cultural autonomy, once cultural structures and practices are missing (or insufficient, weakened), the state of "cultural sovereignty" disappears, which can undermine other aspects of sovereignty. On the contrary, if it is assured an autonomous authentic foundation, our science of lawmaking will be able to use without error, as useful auxiliary material, including the foreign experiences (good practices). The second

pillar should be the existence of a professional structure of the Parliament of the Republic of Moldova, empowered to provide intellectual assistance and multi and inter-disciplinary expertise in the legislative creation activity. At present, in our country, there is no consolidated legal science and no institutionalized entity such as a legislative scientific council [3].

A philosophical definition of law, including enactment, presented by the illustrious French essayist Herve Juvin, says, "**Right is a process of thorough elaboration of a society about itself and for itself.**" The statement practically exhausts the subject, even if it completely ignores the details. Law comes before us as the product of developing a concrete society, but it is also a dynamic and perpetual process within society. So, enactment is not far from the exclusive concern of the legislator, but of the whole society. For citizens holding a representative mandate of a deputy in parliament, making a law is a profession. Deputies are the subjects mandated to represent the society in the continuous elaboration of the law **about our society and for our society**. And how else, rather than largely thanks to a high-value scientific support provided in a well-organized manner, could the law-making process become much better and more beneficial, more about ourselves and more for ourselves?

In our reality, however, the adoption of the law is dictated, often disparaged, by factors such as political (group, not general) interest, electoral stakes, pressure from external partners, social, economic, and institutional problems that can not be overlooked and require urgent legislative intervention. The legal norm developed in such circumstances is rather a reaction to the difficulties of society, that is, often a delayed intervention, rather than the action to guide, for the benefit of society, the phenomena and the important processes, even from their incipient phase. The legislature should be scientifically assisted in a manner that would allow it to act preventively through legislative interventions. At present, however, how the scientific analysis that serves as a support for the promotion in Parliament of some modifications or additions to the legislation, remains at the discretion of the author of the drafted law. We have legislation that more prescribes the procedural part of the legislation, meaning a legal regulation of the stages and formalities of legislation, and not one that would guarantee by law a good examination and scientific evaluation in the process of legislative creation. Here comes the natural question whether it would be appropriate to have a thorough legal regulation of how the quality of law-making should be ensured. The answer is negative. Or, the excessive regulation, especially in creative and scientific processes, only complicates them. Science must support the ongoing process of law-making, become a constant aid, and the legislator should only create the conditions for receiving that support.

For the sake of truth, we must emphasize that scientific substantiation (or at least the attempt of such substantiation) in the process of law-making is, as such, an established practice. The legislator has the temptation that the laws he adopts should be perceived as having an incontestable scientific ground. However, the quality of this practice is variable. The way in which the principle of scientific substantiation is observed in the law-making process thus shows the level of development of the science of law-making and highlights the degree of institutionalization of the scientific support benefiting the legislative body of the country. In the case of the Republic of Moldova, as shown above, the degree of institutionalization of such scientific support is eminently rudimentary, leaving much room for approximations and improvisations.

Even if the draftsters of the laws often appeal to academics specialists (depending on the scope of the law: food security, health care, environmental protection, agriculture, cadastre, taxation, banking, etc.), we lack the basis of a strengthened interdisciplinary methodological approach that would not only provide scientific arguments for each specific field of law enforcement but also the institutionalized analysis of the possible impact of norms in the process of elaboration on other spheres that they do not explicitly address but which could be affected (or, why not, advantageous) by the collateral impact of the rule of law. The science of lawmaking should also have the function of providing the processes and phenomena whose evolution should not ignore the legislator's attention.

The importance of practicing scientific substantiation in the process of lawmaking goes beyond the undeniable significance of the quality of legislative acts. Respecting this principle is one of the factors that give Parliament prestige. As each segment of society notices more that the legislation to which it is addressed is the product of an elevated and effective development, the more the image of the legislative body is getting better, increasing confidence in the country's parliament.

METHODOLOGY

To scientifically base a legislative intervention means to use, based on specific methods, a set of knowledge and systematized information and expressed in categories, principles, definitions and notions of man, nature and society. The activity of lawmaking, mentions , calls for a thorough knowledge of social and legal reality, which can be achieved through extensive investigations and research of economic, sociological, criminological, and social psychology [4]. The basic methods by which the application of the principle of scientific substantiation is ensured are:

- Description of the factual situation (category / categories of social relations and their nature) to become a rule of law (legal rule governed by a rule of law)

We have to deal with the descriptive method applied alongside other methods, depending on the area in which the legislator intervenes. Various other methods may be required, such as sociology, history, computer science, and other science in the field of social affiliation covered by the bill. The description can be statistical, dynamic, systematic, unsystematic, etc. The description must be objective, exhaustive and balanced. Otherwise, the use of the other methods could follow a hijacked route.

- Analysis of the causes, configuration factors (objective causes) that require the new regulation

The description of the factual situation will highlight the trends and changes that escape the positive right. The logical analysis based on the cause-effect corollary will lead to the conclusion that there is a need or no need to introduce a new regulation or to amend one (or more) of the existing rules. Another solution that may result from this analysis may be the need for a rule to be abrogated.

Analysis of causes and effects requires some expertise depending on the area in which the legislator intervenes (finance and banks, agriculture, engineering, chemistry, linguistics, etc.).

Dumitru Baltag underlines that "insufficient knowledge of the fact can lead to unfounded legal solutions, it can give a false image to the social effects of the respective regulation, with all the negative consequences that may arise" [5].

- Determining the purpose of the projected norm

The purpose for which a new rule is developed derives from the essence of the factual situation on which the legislator meditates. Depending on the superior interests of the society, the legislator may resort to the stimulation, restriction, preservation or even cessation of certain tendencies (phenomena). The result of this effort determines the permissive, binding, descriptive, etc. nature of the drafting norm.

The legislator needs to know exactly what effects are being pursued by drafting the new legal rules. The purpose of the norm in the drafting process can be determined by various means, including by recording it in a policy document according to art. 24 of the Law on normative acts.

- Analysis of the opportunity

A new norm must be adopted at the right time and applied in the right space. This must be harmonious in all social regulations. The moment of adoption is dictated by social realities.

The "copy-paste tradition", which has been rooted in our legislative practice, would require at least a critical analysis. However, some norms are more desirable than our foreign partners, rather than the practical necessity of the Republic of Moldova.

- Anticipating the effects that the new norm will produce

The legislator pursues a specific effect (social, political, economic, etc.) that the new legal norm should produce. The legislator must have all the safety, confirmed by scientific expertise, that the norm will produce exactly the intended effect.

- Identifying the most appropriate, clear (accessible) and concise language formulas that ensure the achievement of the proposed goal

The form of textual expression (respecting all the rigors of the linguistics methodology) of the will of the legislator must ensure absolute clarity on the logical and legal content of the norm. The text of the rule must explain in an intelligible and accessible manner the circumstances in which the rule refers, the conduct prescribed to the subjects of the legal relationship concerned and, possibly, the circumstances of the application of the legal sanction.

Ways to ensure practical application of the principle of scientific substantiation in the process of enactment. Conclusions and recommendations

Every sector of the academic environment in the Republic of Moldova is deeply studying the domain to which it is devoted, knows its trends, realities, and problems best, and is able to propose scientifically grounded solutions that interest (or should be of interest to) the legislator. In most cases, the need for early intervention by the academic community is either not timely communicated to policymakers who should react through legislative initiatives or are poorly received. In other words, there is no communication channel in the Republic of Moldova between the legislative authority and the scientific researchers. The fact that our society misses countless opportunities in the law-making process, which scientists have spotted and that avoids the legislator's attention, is a great loss. Legislative power must establish an organized and effective form of dialogue with the academic environment. However, maintaining this dialogue cannot be ensured either by political functionaries (parliamentarians in parliament) or by parliamentary secretaries. It is necessary to create an intermediary entity that communicates very efficiently with both MPs and state-run specialists, as well as researchers from every field of scientific activity. This entity may be a legislative scientific council. The experience of states that have effectively instituted organs of this kind shows that their effectiveness is undeniable, bringing a significant added value to the law-making process.

Two attempts have been made in the Republic of Moldova to create such an organ. Although the work put forward by the authors of these two initiatives is of great value, political factors have remained apathetic toward this.

What has been achieved in the Republic of Moldova is the increase in the level of assistance provided to deputies. This increases the efficiency of the mandate of a deputy but can not compensate for the lack of a legislative scientific council. Deputies' consultants assist them mainly in the technical organization of their work and provide them with individual support in the implementation of political agendas. Members' consultants do not constitute a consolidated body and can not provide for effective communication between the legislative power and academia.

The establishment of a legislative scientific council in the Republic of Moldova could be a good start to lay the foundations for advanced communication between the legislative and the academic environment. This would pave the way for coagulation of an interdisciplinary methodological basis [6] that would ensure the permanent examination of the state of the legislation through the knowledge and expertise of academic chairs. This would ensure a better design of the results of the national scientific environment, which consumes important budgetary resources, on the country's laws, programs and strategies. In this way, the Republic of Moldova will increase the return on the benefit of its investments in the scientific field, and scientists, when they will notice the real interest of the state authorities towards their effort, will be more motivated to deliver scientific support maybe qualitatively and consistently. In this way, the right in the Republic of Moldova will really be a development of our society for our society and our society.

The authors Radu I. Motica, Gheorghe Mihai, point out that the bodies with legislative attributions do not themselves have the possibility to undertake large-scale scientific research. These operations, according to them, "require specialization and special information". This means that in a number of countries such as France, USA, Romania and others, the legislative bodies resort to specialized bodies [7].

The constitution of a legislative scientific council in the Republic of Moldova is a special topic, on which we will come back on the following occasions.

LITERATURE:

- [1] Mircea Djuvara, General Theory of Law. Rational Right, Sources and Positive Law, All Beck Publishing House.
- [2] Prof. univ. Prof. Nicolae Popa, General Theory of Law, ed. ALL Beck, Bucharest, 2002.
- [3] Law No. 100 from 22.12.2017 regarding the normative acts (<http://lex.justice.md/md/373698%20/>) and the Law for the adoption of the Parliament's Regulation no. 797-XIII of 02.04.1996, republished in the Official Gazette of the Republic of Moldova, no.50 / 237 of 07.04.2007 (<http://www.parlament.md/CadrulLegal/RegulamentulParlamentului/tabid/154/language/ro-RO/default.aspx>).
- [4] Dr. Costică Voicu, professor, General Theory of Law, LUMINA LEX Publishing House, Bucharest, 2002.
- [5] Dumitru Baltag, General Theory of Law, University Course, Chisinau, 2010
- [6] Radu I. Motica, Gheorghe Mihai, General Theory of Law, ALL Beck Publishing House, 2001. On page 164, the authors talk about regulatory operations, mentioning, with reference to other authors in the field, that they involve a scientific approach of nature interdisciplinary.
- [7] Ibidem.

I. CERCETĂTORI ȘI DOCTORANZI

SECTIUNEA I: Strategii de dezvoltare a economiilor naționale

ANALYSIS OF FACTORS FAVORING THE GROWTH OF THE SMUGGLING AS A FORM OF THE UNDERGROUND ECONOMY

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Abstract. Along with legal trade that favors economic development, illegal trade, including smuggling, which is the clandestine crossing the border of goods forbidden or evaded from customs duties or goods whose entry or removal into or out of a country is prohibited, stopped by law, or evading goods from customs control.

Republic of Moldova ranks 65th out of 91 countries on the "black market", according to data from a study evaluating the "black market" around the world and its highest value is given by drug trafficking - \$ 225 million and goods counterfeit - \$ 45 million. The value of smuggling in the Republic of Moldova exceeds 270 million US dollars, which is, compared to the value of the foreign trade for 2017 - 37.5 % of its value.

The smuggling has strong negative effects. First, it prevents the state from adopting effective commercial policies, the state lacks high budget revenues, and it fosters the process of differentiating the incomes of the population, and finally yet importantly - creates a non-equal competitive environment for all market participants, where smuggled revenues are involved in domestic economic activities

Along with the underlying factors of the underground economy, such as tax burden, regulatory burden and tax morality, smuggling still has a number of specifically determinant factors that, in our opinion, are:

- a) Corruption, which is a different form of the underground economy.
- b) The existence of Transnistrean territory that is not controlled by Moldavian customs authorities.
- c) Technology Development.
- d) Geographic location of the country.
- e) Some ideologists considering the underground economy as a natural, harmless phenomenon with positive and negative sides.

Key words: smuggling, underground economy, smuggling effects, combating smuggling.

JEL CLASIFICATION: E26

INTRODUCTION

One of the factors with a major contribution to the prosperity of humanity includes the development of trade, with all its structural and localization elements; if we do an imaginative exercise, we can easily understand how slow it was (autarchic areas undoubtedly prove this) the development of mankind without trade, without market.

Unfortunately, along with legal, tax-based, trade-based trade, an illegal, non-taxed trade has developed that is based on other economic rules or principles; the two legal and illegal forms of coexistence trade interfere, and when unlawful attacks become predominant, they can generate the abnormal functioning of the whole economy. Moreover, illegal trade embraces within it a series of components that, through their existence and manifestation, are not only economically damaging to society; its harmful effects also extend to the life, health, and bodily integrity of people. If trade in counterfeit or non-taxed products mainly affects only the economic component of life, trade in drugs, human beings, arms, etc., it certainly affects life itself.

It is worrying the fact that illicit trade tends to catch up as much as possible from the licit area, develop, and expand, with consequences directly proportional to its size. For this reason, certain

components of illegal trade are in the attention of some states, institutions and international bodies, associations, in order to determine what is and how to do or whether something should be done. At the same time, various researchers and scientists have also approached, by studying particular cases, the different components of illegal trade, in order to issue hypotheses and generally valid theories. Therefore, at present, at international level, there are statistical data on components of illegal trade, based either on information resulting from the intervention of state authorities or other international institutions, or on results from estimates based on other data gathered and their correlation.

Based on these data, we will try to analyze the main factors favoring the development of smuggling as one of the forms of illicit trade and one of the forms of underground economic activity.

MATERIALS AND METHODS.

The aim of the research is to investigate the main factors that favor smuggling in the Republic of Moldova. At the same time, we propose to carry out a comparative analysis of these factors in the Republic of Moldova and Romania.

The actuality of the matter is underlined by statistical data and various studies, which show us that the value of smuggling in the Republic of Moldova exceeds 270 million US dollars, which compared to the value of the foreign trade for 2017 - 37.5 % of its value.

We start from the hypothesis that smuggling has a number of specific growth factors as compared to the underground economy as a whole.

Throughout the research, we mainly plan to use the empirical comparison method and research.

RESULTS AND DISCUSSIONS.

Developing a program to combat the underground economy involves remodeling the real economy to determine its immunity to certain manifestations of the underground economy, but also to ensure its permeability to those activities that can be absorbed. Thus, the realization of a program to combat the underground economy can be described as an action involving the understanding of seemingly divergent phenomena and especially the relations established between them. Thus, we can deduce the following **relevant criteria** that can form the basis of a **plan to combat the underground economy**:

I. **Identifying the certain forms** in which the underground economy is manifested presupposes the elaboration of a study on the evaluation of the tax evasion in each activity, starting simultaneously from the known theoretical aspects and the concrete way of deployment for the identification and understanding of its particularities.

II. **Identifying the specific causes of the underground economy** is an equally important objective, since in this situation behind the universally valid causes are particularities whose careful understanding is necessary. Thus, although a reasonable average of fiscal pressure suggests, in principle, the orientation to identifying other causes of the underground economy as a matter of priority, an analytical examination, by groups of activities, can demonstrate the existence of marginal rates that can decisively influence the behavior of some taxpayers. The situation is also valid for the analysis of the intensity of the regulations, where there may be important distortions behind some regulations and norms that, individually analyzed, correspond to the purpose for which they were developed.

III. **Analyzing each situation with economic methods and ensuring a balanced relationship between incentive and coercive measures**, known the fact that they are exclusively legal, with regard to the number of offenses found, the damage they generate and the proposals to tighten coercive measures.

IV. **Ensuring economic support capable of absorbing the economic capacities and redundant workforce in the underground economy** so that countermeasures can be pursued on the backdrop of an economic growth program capable of providing alternatives to those willing to

give up work in this area, as well as for the consumers of the goods and services offered by them. In applying this principle, it must be taken into account the fact that, in addition to the big profiteers, a large number of people are just ensuring their survival from illicit income or consuming smuggling products.

V. Continuing programs and setting realistic goals, constantly correlated with similarly developed internationally, presuppose the consistency of the implementation of the measures on medium and long-term results, their force being determined by the practices of the area in which the activity takes place, thus avoiding the migration of the capital towards milder taxes.

If we refer to the main forms of manifestation of the underground economy, they are:

- Tax evasion
- Black Labor market
- Money laundering process
- Corruption
- Violent activities of the underground economy (terrorism, smuggling, drug and guns trafficking, prostitution, etc.)

The research is focused on the study of smuggling as a form of violent activities of the underground economy.

Smuggling in the Republic of Moldova is widely spread, and with the transition to the market economy and the problems generated by this process, many participants in the economic activity tried to avoid paying taxes.

Moldova ranks 65th out of 91 countries on the "black market", according to data from a study evaluating the "black market" around the world and its highest value is given by drug trafficking - \$ 225 million and counterfeit goods - \$ 45 million. [1]

Romania ranks 45th with a value of "black" trade of \$ 1.54 billion. The bulk of this is cigarette smuggling (\$ 1.3 billion), the pirated software being valued at \$ 200 million. [1]

According to the *National Risk Assessment Report on money laundering and terrorism financing in the Republic of Moldova*, the value of seized smuggled goods consisted of:

- 83,4 million MDL in 2011
- 59,7 million MDL in 2015

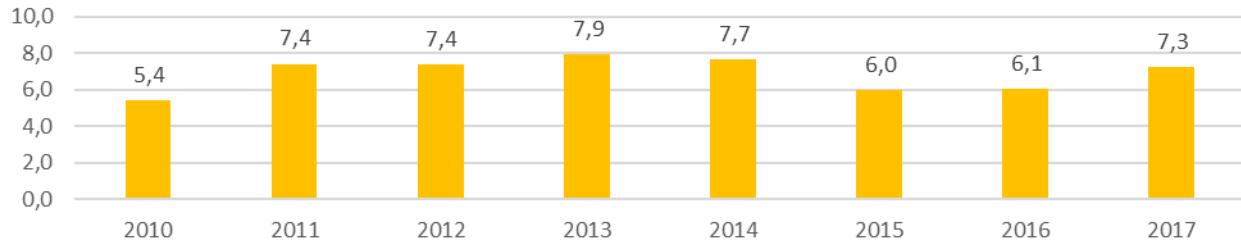
The foreign trade of the Republic of Moldova has tended to decrease since 2013. At the same time, the data of the National Bureau of Statistics shows that the number of smuggling crime registrations is constantly increasing.

Tab. 1 . THE FOREIGN TRADE OF THE REPUBLIC OF MOLDOVA

| | US thousand dollars | | | | | | | |
|----------------------------|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Exportation – total | 1541486,6 | 2 216 815,0 | 2 161 880,0 | 2 428 303,0 | 2 339 529,6 | 1 966 837,2 | 2 044 610,8 | 2 425 118,3 |
| Importation – total | 3855288,6 | 5 191 270,6 | 5 212 928,3 | 5 492 393,1 | 5 316 958,9 | 3 986 820,3 | 4 020 357,0 | 4 831 412,2 |
| TOTAL | 5 396 775 | 7 408 086 | 7 374 808 | 7 920 696 | 7 656 489 | 5 953 658 | 6 064 968 | 7 256 531 |

Source: elaborated by the author based on data from the National Bureau of Statistics of the Republic of Moldova, www.statistica.md, accessed on 04.25.2018

Fig. 1 Foreign trade evolution in the Republic of Moldova, mln USD



Source: elaborated by the author based on data from the National Bureau of Statistics of the Republic of Moldova, www.statistica.md, accessed on 04.25.2018

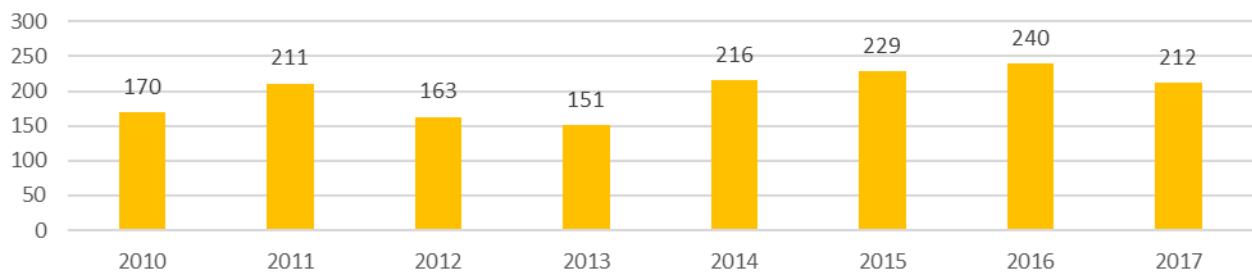
Tab. 2 Number of crimes recorded by types, 2010-2017

Number of cases

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2017 in % compared to 2016 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------------------|
| Economic crimes | 1053 | 1384 | 1928 | 1002 | 1305 | 1429 | 1132 | 1060 | 93,6 |
| <i>including:</i> | | | | | | | | | |
| smuggling | 170 | 211 | 163 | 151 | 216 | 229 | 240 | 212 | 88,3 |
| making fake bills/money | 376 | 681 | 1156 | 344 | 286 | 433 | 216 | 194 | 89,8 |

Source: elaborated by the author based on data from the National Bureau of Statistics of the Republic of Moldova, www.statistica.md, accessed on 04.25.2018

Fig. 2 Number of smuggling cases recorded from 2010 to 2017



Source: elaborated by the author based on data from the National Bureau of Statistics of the Republic of Moldova, www.statistica.md, accessed on 04.25.2018

By comparing the statistical data on the evolution of the foreign trade of the Republic of Moldova and the number of recorded smuggling, we can see that there is no direct link between them. This may have two possible causes: the smuggling phenomenon is growing in size, or the organs responsible to combat the smuggling work more efficiently.

If we refer to the notion of smuggling, it is the clandestine crossing of goods banned or evaded from the payment of customs duties or goods whose entry or removal into or out of a country is prohibited by law or evading goods from customs control. [4]

Smuggling aims to develop a hidden, illicit, non-governmental world trade, but conscious and felt by them in country economic life.

The provisions of the Customs Code regulate the smuggling activity, and the Customs Service of the Republic of Moldova is the body that aims to prevent, detect, counteract and investigate cases of smuggling. According to Article 224 of the Customs Code of the Republic of Moldova reads: *Passing over the customs border of goods, bypassing the customs control or concealing them, done in large or very large proportions, either repeatedly or by a group of persons who have been organized for smuggling, either a person with a liability function who makes use of the service situation or the fraudulent use of customs documents and other documents, accompanied by non-authentication or non-authentication in customs documents or in other documents such a passage of drug, psychotropic substances with strong, toxic, poisonous, radioactive and explosive effects, noxious wastes, weapons, explosives, fire guns and ammunition, with the exception of weapons for hunting with a push pipe and cartridges to them, cultural values, as well as the non-return to the customs territory of the cultural values removed from the country in the return of which is mandatory is considered as smuggling and is punished in accordance with Penal Code.* We should note that this is a legal definition of the smuggling phenomenon.

Smuggling has powerful effects on economic activity.

From the legal point of view, according to the provisions of Customs Code, smuggling is a crime and is punished according to Penal Code.

From the economic point of view, the definition in Customs Code is not complete.

The economic effects of smuggling can be divided into two main categories:

In external economic relations:

- prevents the state from adopting effective trade policies,
- lacks the state of high budget incomes.

Within the country:

- promotes an increase in the process of differentiating the incomes of the population,
- leads to a non-equal competitive environment for all market participants, where smuggled revenues are involved in domestic economic activities.

In order to be able to analyze the main factors favoring smuggling in the Republic of Moldova, we must start with the research of the factors that favor the underground economy as a whole. Studying the literature in this domain, a set of factors with systemic impact on the underground economy were identified, noting that it is not a comprehensive list:

I. **Tax burden** – we mean firstly, the structure of the tax system, the amount of taxes and social contributions. A too complex system, with high rates of taxes, directly contributes to increased tax evasion processes.

II. **Regulatory burden** – is equivalent to legislative complexity and administrative barriers in different areas that influence the process of opening, managing and closing a business. In this case, the compliance costs are too high, increasing the probability of non-compliance with those provisions.

III. **Morality of taxation** – is the totality of social and moral norms that shape people's attitudes towards paying taxes. These rules result from citizens' perception of the quality of public institutions and services, the equity of the tax system, the level of corruption, etc. [2, p.p. 13-14]

The influence of these factors varies from one country to another, depending on the level of economic development. Schneider has systematized key factors after their influence on the underground economy and concluded that the most important factor is the tax burden, followed by tax morality. [2, p.14]

Tax pressure in the Republic of Moldova seems to be a moderate one: according to "Doing Business 2015" ranking, the total of taxes as a part of commercial agents' profits is 39.7%, while in Romania it is 43.2%. [3, p.48]

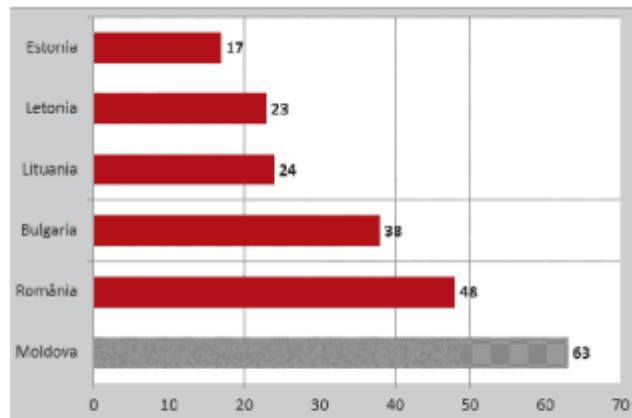
The size of taxes applied in the Republic of Moldova is not high compared to other reference countries. The negative perception of the high tax pressure among businesspersons comes from: (i) low productivity and high degree of sophistication of Moldovan businesses that cause poor financial conditions and uncertain conditions as well; (ii) low tax outcomes. These are the determining

factors that fuel the motivation of economic agents to avoid paying taxes and resort to informal channels. [3, p.50]

Business regulatory framework defines the game rules set by the government, which must be observed by economic agents. Theoretically, these regulations must discourage any negative external factors and, at the same time, encourage positive external factors generated by economic agents so that entrepreneurs can operate without restrictions in their core areas and contribute, in all possible ways, to the development of the country. However, when these rules are non-transparent, unpredictable, burdensome, and abusive or applied unequally and discretionally to different players, all parties involved will seek ways to avoid them. Therefore, the quality of the regulatory framework is essential in explaining the propensity of economic agents to resort to informal channels. The most creditable but far from being a perfect measure of regulating business quality is the World Bank's Index - "Doing Business". According to the results of the survey conducted in 2015, Moldova ranks 63rd in 189 countries, jumping 19 positions compared to the previous year (ranking 89th out of 189 countries). [3, p.41]

Romania ranked 48th in the same ranking by „Doing Business”.

Figure 3. “Doing Business 2015” ranking for Moldova and other reference countries



Sursa: Doing Business 2014 și 2015, Banca Mondială.

In international practice, one of the questions in the World Values Survey (WVS) is used more often to assess tax morality. WVS is an investigation conducted within a global research project exploring the socio-political impact on people's values, beliefs and attitudes, and how all these change over time. [2, p.20]

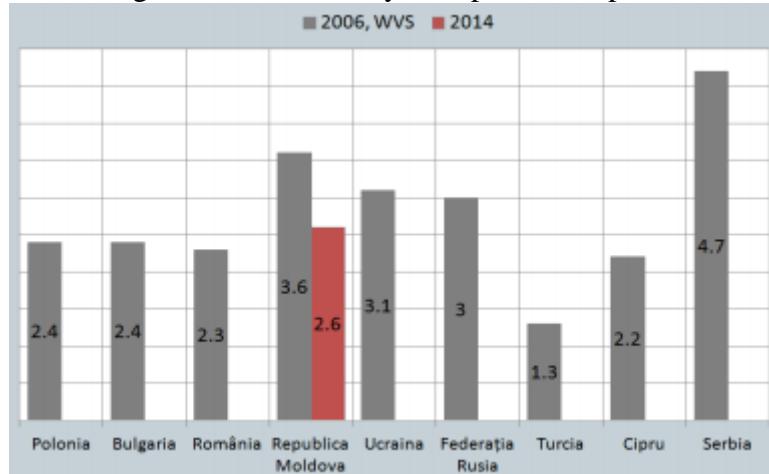
The Republic of Moldova was also included in the WVS 2006 study. However, in order to reveal the current realities in the Republic of Moldova, a questionnaire was developed. Some of the questions in the questionnaire were taken from WVS and then adjusted, while others written by the authors. The questionnaire consisted of questions aimed to identify the attitude of the population towards justice, state institutions and public services, management and transparency of public finances, the pension system. The question regarding Tax Morality is similar to the one from WVS. Thus, Tax Morality level has been assessed depending on the answers to the question: „How justified is the following statement? If you had the chance to declare a lower income just to pay less tax”. The answers to the question were marked with values from 1 to 10, where 1 corresponds to the statement "not justified" and 10 means "is justified".

The average score on this question, excluding those who did not answer or did not know what to answer, was 2.6 points. The comparison between the current 2.6 point score and 3.6 points in 2006, based on the WVS survey, shows progress in this area.

At the same time, even this progress keeps the Republic of Moldova at a low level compared to other states in the region, including Romania. This comparison shows an unfavorable situation,

so in the Republic of Moldova there is less motivation to pay taxes, which could explain the increased difficulties in the implementation of tax collections. [2, p.21]

Figure 4. Tax Morality, comparative aspects.



Source: Budianschi D., Lupu șor A., Fală A., Morcoțilo Iu. „Discrepanța fiscală – o realitate invizibilă”, Chișinău 2014, p.21

Based on the main determinant factors, we can conclude:

- ✓ Tax pressure in the Republic of Moldova is lower than in Romania, so we can conclude that the Tax burden is a less important factor of smuggling.
- ✓ At the same time, the situation with the regulatory burden is worse in Moldova, so we can conclude that Regulatory Burden has a more decisive role on smuggling.
- ✓ As far as tax morality is concerned, it does not differ essentially from the one in neighboring countries, so we cannot use the comparison method to make a conclusion.
- ✓ Smuggling still has a number of specific determining factors.

In our opinion, smuggling specific determining factors in Moldova are:

1. Corruption, which is a different form of underground economy. The high level of corruption directly favors violent underground economic activities, including smuggling. Moldova was ranked 123th by the corruption perceptions index in 2016. Romania – 111
2. Existence of Transnistrian territory uncontrolled by Moldovan customs authorities. (Petroleum, Alcohol, Cigarettes, Meat and Many Other Types of Goods).
3. Technology Development (anabolic and cigarettes trade through "Posta Moldovei", electronic devices, etc., online trade).
4. Geographical location. The geographic location of Moldova favors the transit of smuggling products in both directions (East-West and West-East). We have all heard of the famous case with 200kg of transited heroin or mercury transit, etc.
5. Some ideologists considering the underground economy as a natural, harmless phenomenon with positive and negative sides.

CONCLUSIONS.

We can conclude that smuggling is a widespread phenomenon in the Republic of Moldova, the number of detected smuggling cases being constantly increasing. The value of smuggling in the Republic of Moldova exceeds 270 million US dollars, which is, compared to the value of the foreign trade for 2017 - 37.5 % of its value.

Smuggling is a form of violent activity in the underground economy, alongside terrorism, drug and weapon trafficking, prostitution, etc.

The main effects of smuggling are:

- preventing the state from adopting effective trade policies,
- lacking the state of high budget revenues.

- favoring an increase in the process of differentiating people's incomes,
- creating a non-equal competitive environment for all market participants, where smuggled revenues are involved in domestic economic activities.

Based on the main determinant factors, we can conclude:

- ✓ Tax Pressure in the Republic of Moldova is lower than in Romania, so we can conclude that Fiscal Loan is a less determinant factor of smuggling.
- ✓ At the same time, the situation with the regulatory burden is worse in Moldova, so we can conclude that Regulatory Burden has a more decisive role on smuggling.
- ✓ Regarding Tax Morality, it does not differ essentially from that in neighboring countries, so we cannot use the comparison method to make a conclusion.
- ✓ Smuggling still has a number of specific determinant factors.

We consider that the main specific determinant factors of smuggling in the Republic of Moldova are:

- a) Corruption, which is a different form of underground economy.
- b) Existence of Transnistrian territory uncontrolled by Moldovan customs authorities.
- c) Technology Development.
- d) Geographical location of the Republic of Moldova.
- e) Some ideologists considering the underground economy as a natural, harmless phenomenon with positive and negative sides.

REFERENCES:

- 1.<http://capital.market.md/ro/content/contrabanda-%E2%80%93-aproape-jum%C4%83tate-din-comer%C5%A3ul-republicii-moldova>
- 2.Budianschi D., Lupu șor A., Fală A., Morcoțilo Iu. „*Discrepanța fiscală – o realitate invizibilă*”, Chișinău 2014, Disponibil pe Internet:
http://expert-grup.org/ro/biblioteca/item/download/1282_3f38a03e63105f8154a2036547d3e436
- 3.Popă A., Lupu șor A., Rosca I., Hirose K., Hettes M. „*Economia informală în Republica Moldova: O analiză cuprinzătoare*”, Disponibil pe Internet:
http://www.cnpm.md/public/files/Economia_informala_26_03_2015.pdf
- 4.Crisan Eugen, Rezumatul tezei de doctor „*Forme ilegale ale comerțului internațional*”, Disponibil pe Internet:
<http://193.231.20.119/doctorat/teza/fisier/725>
- 5.Biroul Național de Statistică a Republicii Moldova, <http://www.statistica.md/>
- 6.CODUL VAMAL al Republicii Moldova, Disponibil pe Internet:
<http://lex.justice.md/index.php?action=view&view=doc&id=319745>

INSTITUTIONAL SUPPORT INFRASTRUCTURE FOR SMALL AND MEDIUM-SIZED ENTERPRISES IN IRELAND

ÎNTREPRINDERILE MICI ȘI MIJLOCII ÎN IRLANDA

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Abstract. Business support infrastructure for small and medium sized enterprises in Ireland encompasses a variety of different government and private institutions. It can play a critical role in the success of innovative new ventures, as it may provide a wide range of support in the form of advice, networking, finance and accommodation. Government provides a wide variety of instruments and programmes for SMEs, promotes public policies to foster and grow high-potential companies.

Keywords: SME, business support infrastructure, Ireland, funding programmes.

JEL CLASSIFICATION: M130; M210; M290.

INTRODUCTION.

The Republic of Ireland presents a spectacular economic growth, rising three times faster than any other country in European Union (EU) [9]. According to the Central Statistics Office of Ireland (CSO) the country's gross domestic product (GDP) increased by 7.8% in 2017 [12]. The economy of Ireland is developed and stabilized at an accelerated pace after the severe crisis in 2008. At the base of this growth are large multinational on the one hand and small and medium-sized enterprises (SMEs) on the other hand.

During the meetings with Irish authorities the author noticed that government pays particular attention to the SME sector by promoting the development of business support infrastructure. The Irish support infrastructure ecosystem is imposed by functionality and increased adaptability to the needs of SMEs, which is reflected in the performance of small and medium-sized companies. SMEs performance plans has a crucial role in the growth of developing countries such as the Republic of Moldova but is equally important for highly developed countries such as Ireland. By comparison, the SME sector in the Republic of Moldova comprises 98.7% of all enterprises [6], in Ireland this sector represents 99.8% of all active companies. If there is no major difference between Ireland and Moldova compared to the total number of enterprises, the difference being only 1.1 percentages, then the employment gap created by SMEs is 8.8 percentages. SMEs are particularly important for the Irish labor market. They generate over 70% of all jobs, about 4 percentages more than the EU average. They generate 47.8% of sales revenue, 9 percentages below the EU average. This reflects the importance of increasing the added value that large enterprises and especially foreign-owned multinationals operating on the territory of the country contribute to the development of the Irish economy [13]. In Moldova SMEs account for 41.5% of total sales revenue, 15.5 percentages less than the EU average. Data from the National Statistical Office of Moldova for SMEs in 2015 reflects a share of 97.2% of all enterprises [7]. Small businesses accounted for 55.2% of total employees and sales revenue of 30.8%, lower with 17 percentages compared to Ireland and 26.2 percentages less than the EU average. Thus, comparing the performance of SMEs in the Republic of Moldova with those of Ireland in particular and the performance of European SMEs in general, we conclude that there is a partially capitalized potential of indigenous enterprises, but also barriers, obstacles encountered at the stages of creation, managing and ensuring business viability.

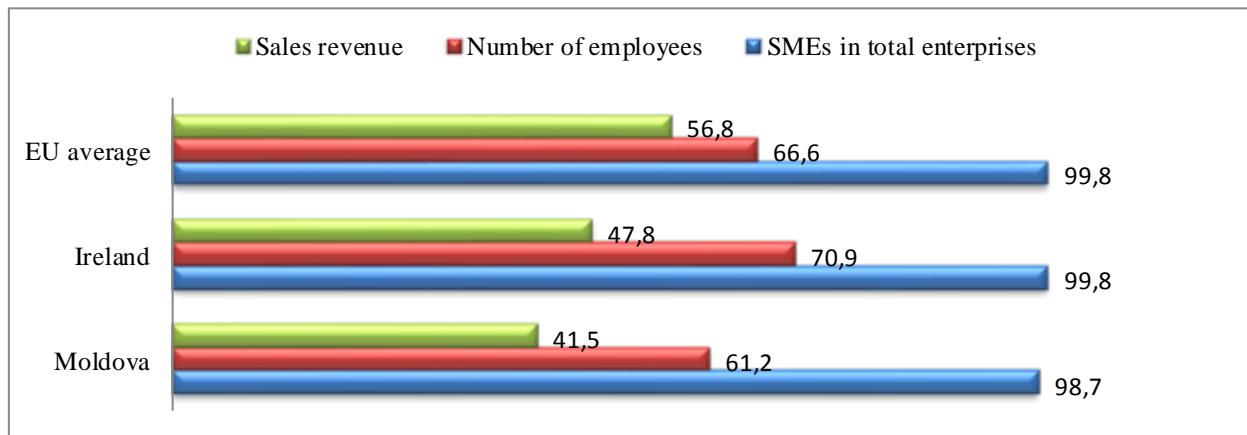


Figure 1. Indicators of entrepreneurial activity: number of enterprises, employees and sales revenue, %

Source: Author's elaboration based on data from: www.statistica.md, www.ec.europa.eu/eurostat/data/database

In this context, there is a need to identify best practices at international level, in our case, good Irish practices in order to highlight the key factors underpinning a business infrastructure designed to contribute to the development of SMEs. When talking about European best practice in SME sector the examples are almost invariably drawn from the Irish experience [9]. However, Ireland provides a good example of institutional, informational, research and innovation infrastructure.

MATERIALS AND METHODS.

In the elaboration of the research, general scientific methods were applied, such as: fundamental research and discussions with the experts / representatives of the institutions responsible for supporting the SME sector in Ireland. Materials are the information obtained by the author during the study visit in Dublin, Ireland between November 29 and December 5, 2015. The study visit aimed at identifying best practice in SME support, including by creating a business infrastructure that meets the real needs of entrepreneurs.

As informational materials the author analyzed scientific papers on the investigated subject, official documents (laws, programs), database of the National Bureau of Statistics of the Republic of Moldova, the Central Statistics Office of Ireland and the Statistical Office of the European Union - EUROSTAT.

RESULTS AND DISCUSSIONS.

SME support infrastructure represents all private and public organizations that contribute to the creation and development of SMEs: financial institutions, training and consultancy centers, SME support and development organizations, business incubators, innovation parks (scientific, technical-scientific and technological) [10]. Considering the advanced level of development of the Irish SME sector and the contribution of these enterprises to the development of the country, it was necessary to develop a study on the analysis of the activity of the main institutions involved in the process. Thus, the results of the research are presented on the basis of the information obtained during the discussions with the representatives of the following organizations and public institutions responsible for stimulating entrepreneurial activity: International Development Ireland; Department of Business, Enterprise and Innovation; Enterprise Ireland; Local business offices; Association of Small and Medium Sized Enterprises; Dublin Chamber of Commerce; Business Information Center.

International Development Ireland (IDI) was founded in 1989 by 4 government agencies. In 1990 it became a private company, which gave them more flexibility and possibility to be oriented towards concrete results in their work. IDI has a relevant experience in providing business support services and offering practical solutions for various sectors: SME competitiveness / performance,

tourism, health, investment and export promotion, free economic zones, corporate restructuring, banking [9].

Services provided by IDI to the SME sector:

1. Business planning and modeling;
2. Product design and development to meet market demands;
3. Branding and marketing evolution;
4. Productivity and performance improvement;
5. Strategic management;
6. Market research and export promotion;
7. Technology transfer and innovation enhancement;
8. Improving staff performance through effective human resource management;
9. Introducing quality management systems (ISO, HACCP, Global GAP, etc.) based on expectations of international clients;
10. Introduction of financial instruments and instruments tailored to the current situation and needs of SMEs;
11. Facilitating access to funding for early stage ventures.

Department of Business, Enterprise and Innovation provides a range of tailored supports for enterprises of all sizes in Ireland, including support for businesses to prepare for the Brexit. The Irish Government provides over 170 programs for SMEs. Support is diverse and includes: access to finance, management capacity development, mentoring, business development programs, export promotion and penetration of new markets. They are responsible at state level for ensuring compliance with the needs of SMEs in line with national policy to support them. It should be noted that at the state level there is an action plan for job creation that encourages the creation of new businesses, attracting investors, developing companies with increased potential in the penetration of foreign markets [11].

The "Workplace Action Plan 2018" is the seventh edition and has as its main objective to increase the number of jobs throughout Ireland. The government is aware that it is not empowered to create jobs but has the duty to provide the best infrastructure for business and job creation.

The action plan includes the following strategic objectives: create 200,000 additional jobs by 2020, including 135,000 outside Dublin; grow trade and investment in existing markets and diversify into new markets; deliver strong competitive regions to drive regional employment; develop and attract high quality talent; become a global innovation leader to grow and diversify the composition of our exports; drive productivity across all sectors of the economy; achieve a top 5 competitiveness ranking [5].

Enterprise Ireland is a governmental organization responsible for the development of Irish companies in world markets. The institution works in partnership with Irish companies to help them set up, grow, innovate and export to global markets. In this way, they support sustainable economic growth, regional development and employment. The Agency also provides funding and support for researchers from higher education institutions. The main priority of the Agency is the achievement of export sales growth from Irish-owned companies. All services are geared toward helping Irish companies win international sales.

Enterprise Ireland offers a range of supports to business tailored to suit different stages of development and specific funding needs. Company funding by stage of development: [1]

I. Startup idea

New Frontiers is Enterprise Ireland's national entrepreneur development program for early-stage startups. It is based in 14 campus incubation centers across the country.

II. High Potential Start-Up (HPSU) Funding

High Potential Start-Up grant- support the development of an innovative/high potential start-up and the development of an investor ready business plan. Eligible costs include: salaries and overheads, consultancy fees, foreign travel and subsistence, approved business accelerator fees, trade fair costs and prototype costs.

Innovation voucher - worth 5 000 euro, are available to assist early stage companies to work with a registered college or knowledge provider in Ireland and Northern Ireland to explore a business opportunity or solve a technical problem.

New Frontiers is Ireland's - national entrepreneur development program run in partnership with the Institutes of Technology. The program is designed to support entrepreneurs with innovative business ideas who are planning to establish and run their own company. A range of supports including mentoring, incubation space and a 15 000 euro scholarship payment are provided to help accelerate the development of the business and to equip the promoter(s) with the skills and contacts needed to successfully start and grow a company.

Competitive Feasibility funds - the funding is designed to assist a new start-up company or individual entrepreneur to investigate the viability of a new significant growth orientated business or proposition are run throughout the year in specific regions and sectors.

Mentor grant - support the cost of a Mentor Assignment. Enterprise Ireland can match you with an experienced business mentor to assist you in your start-up phase or advise on specific areas of your plan.

Competitive startup plan - a 50 000 euro equity investment designed to accelerate the development of high potential start-up companies by supporting them to achieve commercial and technical milestones such as evaluating international market opportunities or building a prototype. The fund is open for applications several times throughout the year with special calls made for specific sectors such as digital media and aviation. In addition specific calls to support the development of female led high potential start-ups are also run under the Female Entrepreneurship initiative.

The Innovative HPSU Fund allows Enterprise Ireland to offer equity investment to HPSU clients, on a co-funded basis to support the implementation of a company's business plans. First time and follow-on equity investments in HPSUs are supported under this offer.

The aim of the *Market Discovery Fund* is to incentivize companies to research viable and sustainable market entry strategies in new geographic markets. It provides support towards internal and external costs incurred when researching new markets for products and services.

Excel at Export Selling is a series of workshops aimed at rapidly embedding the proven tools of good international selling practice into the sales teams of Irish companies across all industry sectors.

III. Established SME Funding (> 10 employees)

Be Prepared Grant - supports the costs of SME clients in preparing a plan to mitigate risks and optimize opportunities arising from Brexit. It can be used to help cover consultancy, travel and out of pocket expenses associated with researching the direction of their Brexit action plan. This might involve investigating the feasibility of diversifying to new markets and market segments; investment in innovation; improvement in operational competitiveness; enhancement of strategic financial capability.

Strategic Marketing Review Grant - support to undertake an approved program of work in conjunction with Enterprise Ireland advisers and an approved external consultant. This support is targeted at established companies that have experience in selling internationally and who are interested in reviewing and developing their market development strategy.

International selling programme - targeting company management and sales staff, this 10 month program enhances company ability to access new markets and accelerates export sales growth.

Strategic consultancy grant - support the cost of planning or implementing a new strategic development initiative in the company.

Key manager grant - grant to support the cost of hiring a new Key Manager. Must be critical to the company's future development and introduce key skills and expertise to the company's senior management team.

Go Global 4 Growth is targeted at ambitious SME top teams from all sectors, committed to adapting and evolving their business functions to prepare for global growth. The programme offers participants world-class, SME-customised management education, delivered by Ireland's fastest growing University; Dublin City University. Together, Enterprise Ireland and DCU have designed a unique and innovative blended learning programme where top teams will learn from the best and apply that learning in-company to support their global growth.

Job extension grant - funding to support new employment. The fund provides grant support up to a maximum of 150 000 euro towards the recruitment of new employees. Applications for funding will be accepted on specific call close dates.

IV. Large Company Funding (>250 Employees)

Market Discovery Fund - the aim of the Market Discovery Fund is to incentivise companies to research viable and sustainable market entry strategies in new geographic markets. It provides support towards internal and external costs incurred when researching new markets for products and services.

Excel at Export Selling is a series of workshops aimed at rapidly embedding the proven tools of good international selling practice into the sales teams of Irish companies across all industry sectors.

Technical feasibility study - can be used to investigate the feasibility of developing a new product, process, technology or service offering.

In-house Research, Development and Innovation (RD&I) Fund - supporting the development of new or substantially improved products, services or processes. Projects may range from solving technical challenges (R&D) to innovations in services delivery or business models (Business Innovation).

Agile Innovation Fund - agile Innovation projects supports companies in sectors with rapid design cycles to maintain their technology position. The benefits of this grant are that it allows for a very simple application process and delivers a very fast response from application to approval.

Innovation Partnership Grant Program - offers financial support to companies who engage in collaborative research projects with Irish universities and Institutes of Technology. The proposal process and administration of the project is managed by the participating third level research institution.

Horizon 2020 and other EU Research Funding Programme - if a company is interested in working on collaborative research projects with research partners across Europe, there are a range of international research programs designed to foster collaborative cross-border research between companies in different member states.

Innovation 4 Growth Programme - targeted at ambitious companies seeking to drive growth through innovation, this program supports companies through an end-to-end innovation learning and practice journey to deliver on one or more innovation initiatives.

Local Enterprise Offices (LEO) - the *First Stop Shop* for anyone seeking information and support on starting or growing a business in Ireland. At present there are 31 offices in Ireland across the local authorities. The Local Enterprise Office is for people interested in starting up a new business or already in business including; entrepreneurs, early stage promoters, start-ups and small business looking to expand [2].

The role of local entrepreneurial offices is to:

- a. To drive the development of local enterprise, putting local micro and small business at the heart of job creation in Ireland
- b. To drive and support business start-ups and promote a ‘can-do’ business culture.
- c. To increase the job potential of new and existing micro and small businesses.
- d. To increase the number of innovative businesses with potential to export.
- e. To be proactive in response to the needs of our clients.

Irish Small and Medium Enterprises Association is private and lobbies the interests of SMEs at state level through representatives in various committees and state structures. Join the association is voluntary and paid. At present, about 5% of all existing SMEs are part of the association, but their

overall goal is to lobby the interest of all SMEs at the state level. At the same time, the association offers training programs, specialized courses in various fields, including public policy [3].

Dublin Chamber of Commerce represents the business interests of the entrepreneurs from Dublin. As a business organization it offers a variety of services: preparing documents for export, promoting business opportunities, accessing European projects. The Chamber has 1 300 members, who contribute annually. At the same time, they organize multiple events for the business environment [4].

CONCLUSIONS.

Business support infrastructure in Ireland is highly developed and the functions of the main institution responsible for SMEs development are correlated with real needs of SMEs. The Irish Government promotes and implements an active policy for SMEs, setting clear and achievable targets to create a "friendly" environment for SMEs; ensuring the availability of financial resources for the creation, development and internationalization of businesses; increasing the number of jobs, including those created by SMEs.

Institutional support infrastructure is identified as qualitative by providing services appropriate to the needs of SMEs. At the same time, the availability of 31 local enterprise offices, meets the needs of enterprises at regional level, enabling the harmonious development of the whole country. Ireland presents a well-structured model of the SME support infrastructure and can serve as a good practice for the Republic of Moldova.

REFERENCES:

1. About Enterprise Ireland. <https://www.enterprise-ireland.com/en/About-Us/>. (citat 10.04.2018)
2. About Local Enterprise. <https://www.localenterprise.ie/About-Us/>. (vizitat 10.04.2018)
3. About isme. <https://www.isme.ie/about/about-isme>. (vizitat 10.04.2018)
4. About the chamber. <https://www.dublinchamber.org/about-the-chamber>. (citat 10.04.2018)
5. Action plan for jobs 2018. <https://dbei.gov.ie/en/Publications/Publication-files/Action-Plan-for-Jobs-2018.pdf>. (vizitat 10.04.2018)
6. Activitatea întreprinderilor mici și mijlocii în Republica Moldova în anul 2016.
<http://www.statistica.md/newsview.php?l=ro&idc=168&id=5685>. (vizitat 04.04.2018)
7. Activitatea întreprinderilor mici și mijlocii în Republica Moldova în anul 2015.
<http://www.statistica.md/newsview.php?l=ro&idc=168&id=5258>. (vizitat 05.04.2018)
8. Economic forecast for Ireland. https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/winter-2018-economic-forecast_en. (vizitat 04.04.2018)
9. SME competitiveness/ performance. <https://www.idi.ie/sector/sme-competitiveness-performance>. (vizitat 04.04.2018)
10. Solcan, A. Dezvoltarea infrastructurii de suport pentru întreprinderile mici și mijlocii din Republica Moldova. In: Strategii și politici de management în economia contemporană, 29-30 martie. Ediția a II-a. Chișinău: ASEM, 2013. Pp. 155-160
11. Support for SMEs. <https://dbei.gov.ie/en/What-We-Do/Supports-for-SMEs/>. (vizitat 04.04.2018)
12. Key short-term economic indicators. <http://www.cso.ie/indicators/Maintable.aspx>. (vizitat 04.04.2018)
13. 2017 SBA Fact Sheet. file:///C:/Users/valeriu/Downloads/Ireland%20-2020%20SBA%20Fact%20Sheet.pdf. (vizitat 04.04.2018)

BANKING REGULATION AND ITS IMPACT ON BANKING SYSTEM'S VIABILITY – CASE OF REPUBLIC OF MOLDOVA

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Abstract. Although the crisis has spread in the Republic of Moldova through the channels of the real economy, the national banking system has been affected. Today, the main challenge for the Moldovan banks is to comply with the new Basel standards, whose main purpose is to mitigate the negative effects of the financial crises. The article looks over the quantitative requirements (the capital and the banking liquidity) and the qualitative requirements (risk management system and the corporative governance) of the Basel III. At the same time, it is presented the manner in which the Basel III requirements are reflected in the new national regulatory framework. The dynamic of indicators recorded by the national banking system are analyzed in order to oversee the banking viability dynamic over the years. The data shows that Moldovan banks have been in a comfortable position in the recent years. Thus, the banking system is struggling with a number of structural problems and there are regulatory and supervisory framework gaps. The qualitative requirements of Basel III are considered to bring a more serious challenge for the banking system comparing with the quantitative requirements. It is expected that the new banking regulations will induce good banking risk management practices and will have an impact on viability of each bank from the system and of the banking system as a whole.

Keywords: banking regulation, Basel III, risk management, compliance, banking viability, banking liquidity, capital requirements

JEL CLASSIFICATION: G28

We are in an era of market economy and private property, and the lack of state interference in the economy is an important value of democracy. However, economic crises in recent years have prompted us to enter into an interventionist disposition.

The crises have highlighted weaknesses in the financial sector, implicitly in the banking system. This has forced the rethinking of the international regulatory and supervisory framework of the banking sector to strengthen banking risk management and financial crises. Thus, the Basel Committee on Banking Supervision has created new measures to strengthen the global financial system, published as Basel III.

Although the crisis has spread in the Republic of Moldova through the channels of the real economy, the domestic banking system has been affected. This conclusion is justified by the commercial banks' financial results as well as by the banks' prudential indicators registered in 2009. Subsequently, the money laundering schemes, which took place through the three commercial banks that are in the process of liquidation, highlights the structural problems of the sector and the regulatory and supervisory framework gaps.

Today, the main challenge for the domestic banking system is to comply with the new Basel standards. In order to implement them, the National Bank of Moldova (NBM) has developed a new banking law – the Law on bank's activity – and a list of secondary normative acts in order to put in action the Law. The new banking regulations are a reform undertaken by the Republic of Moldova through the conclusion of the Association Agreement with the European Union in 2014. The essence of the new banking regulations is mostly related to:

- an expanded vision of risk management by increasing capital requirements;
- regulating business ethics and remuneration mechanisms;
- new regulations on affiliated persons and administrators;
- new requirements in the process of changing ownership;
- new staff competencies at the level of each licensed bank;
- ensuring financial stability;
- new supervision and control instruments for the Central Bank.

„Banking regulation is defined by the set of laws and norms applicable to banks in their activity.” [4, pag.2] „The legitimacy of regulation as an act of authority is, in itself, a controversial subject. The question is how much the regulation must intervene.” [5] „Traditionally, the banking system has been subject to a high degree of regulation and supervision.” [4, pag.2] „Although in many countries there is a tendency to deregulate the banking system, the global financial crisis of 2008, followed by the sovereign debt crisis in the European Union in 2012, brought a whole series of accusations against the supervisory authorities and demanded to regulate what was considered a founding value of capitalism and of the market economy.” [5]

„Depending on the reasons for the application of the regulation, three classes of banking regulations can be distinguished:

a) economic regulation – aims to ensure that banks mobilize resources and lend in terms of economic efficiency;

b) prudential regulation – is designed to ensure the efficient allocation of resources, minimize the risks incurred by banks and ensure the stability and financial health of each bank and the banking system as a whole. In other words, the purpose of prudential regulation and the reduction of economic regulation (economic deregulation);

c) monetary regulation – aims to maintain the stability of the internal and external value of the national currency by controlling the total liquidity of the banking system.” [4, pag.2]

The concept of banking viability refers to:

- banks' performance to ensure long-term survival and to minimize the risk of bankruptcy;
- banks' ability to cope with change with optimal resource consumption;
- solving financial problems by reducing operational expenses and increasing the quality of the loan portfolio.

Banking viability is a crucial concept because a stable and efficient banking system ensures a qualitative economic growth. The reasons for applying the above regulation show that banking regulation has a direct effect on banking viability.

The main dimensions of banking viability are liquidity, profitability and solvency – aspects covered by Basel III standards. Next we will analyze the dynamics of the indicators considered most relevant to make conclusions about the stability of banks in the domestic banking system, as well as the new requirements related to these indicators regulated by the new banking law.

Capital requirements regulations. „The banking stability starts from the banks' capital. A high level of capital adequacy demonstrates the ability of banks to manage and redistribute their available cash flows.” [4, pag. 82]

Ensuring a high level of capital adequacy is one of the requirements imposed by Basel III Accord. According to the new bank law, the NBM requires the formation of an additional (internal) capital, the size of which will vary from one bank to another, and will depend on the exposure of each bank to various risk categories (credit, operational, market and other risks). Banks will apply strategies and processes to assess and maintain the adequacy of their internal capital.

Our capital requirements have long been considerably higher than at international level. As of June 30, 2012, Moldovan banks must hold and maintain the risk-weighted capital adequacy ratio of at least 16.0%, previously 12.0%.

The average of the risk-weighted capital adequacy ratio in the banking system during the period of 2008-2017, presented graphically in Figure no. 1, shows that this indicator registered different trends. In 2013, the capital adequacy ratio was 23.02%, in 2014 - it decreased to 13.92% (below the regulated minimum), then in 2015-2017 it is in a continuous upward trend, from 26.31% in 2015, to 29.77% in 2016 and to 31.03% in 2017.

It is worth mentioning that the situation in 2014 was not so much a system issue as it was generated by capital issues from the Banca de Economii and the Banca Socială. These two banks had a risk-weighted capital adequacy ratio of just over 3.0%.

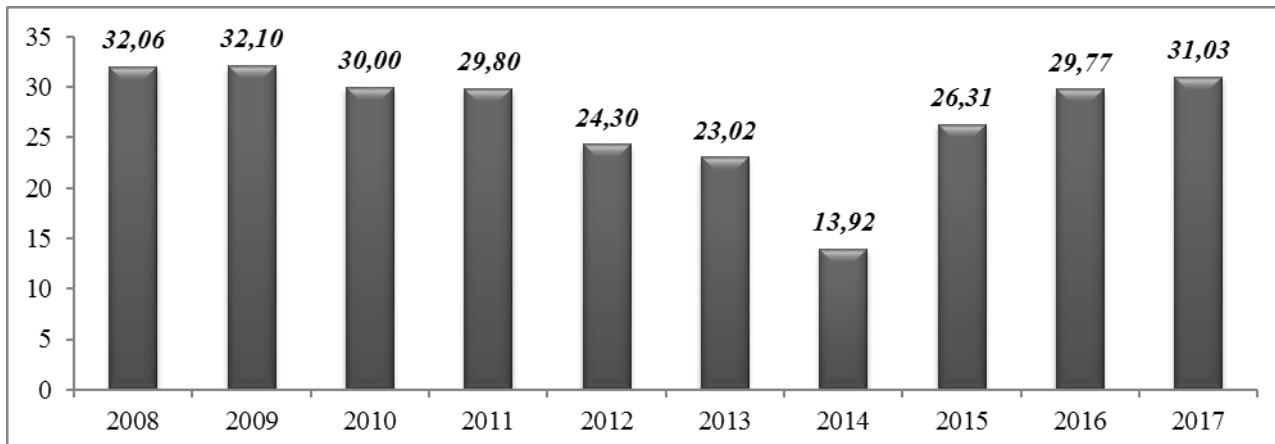


Figure no.1. The average of the risk-weighted capital adequacy ratio in the banking system (%)

Source: elaborated by the author based on the NBM's data [online]. [quoted April 22, 2018]. Available: <<http://bnm.md>>

Liquidity regulations. Basel III involves significant changes in the liquidity requirement, which involves two measurement models, namely the liquidity requirement and the net stable funding ratio.

- 1) **Liquidity coverage requirement (LCR)** – adequate liquidity buffers to enable banks to cope with possible imbalances between liquidity inflows and outflows in severe crisis situations within 30 days - the liquidity coverage requirement.
- 2) **Net stable financing ratio (NSFR)** – monitoring credit risk over time horizons, including during the day – net stable financing ratio. Available stable funding is defined as the share of capital and debt expected to be reliable over the time horizon. The net stable funding ratio would limit the exaggerated dependence on short-term interbank financing by encouraging a better assessment of the financing risk on all balance sheet and off-balance sheet items and thus promoting stability in the financing of banks' activity. [3]

Regarding the liquidity indicators, they show that the banking sector of the Republic of Moldova is an over-liquid one. Only in 2014 there were some deviations from prudential regulations on the system, generated by the situation at Banca de Economii, Banca Socială and Unibank.

Table no. 1 presents the values of the long-term liquidity ratio and the current liquidity ratio. They show that the banking system complies with the limits imposed by the NBM regulations (principle I and principle II of liquidity), which means that there are adequate sources of support for bond payments and increased resistance of banks to possible external shocks. However, the high values of liquidity indicators also involve certain risks. Although, on the one hand, a high level of liquidity is positively appreciated, on the other hand, maintaining such levels of liquidity entails enormous opportunity costs resulting from the missed opportunity to turn these assets into long-term bank loans.

At the same time, excess liquidity hinders the transmission of monetary policy decisions adopted by the central bank, which attempts to adjust monetary policy instruments to its inflationary expectations and crisis forecasts.

Similarly, imposing higher liquidity thresholds means lower financial intermediation. Institutionally speaking, it is a reduction in the social function of banks. Economically speaking, it is a reduction in real economy financing, so a reduction in economic growth, so a hindrance to exit the recession. In other words, if we want more liquid banks, we will have lower risks of not being able to raise our deposits whenever we ask them, but we will bear the cost of lower economic growth.

Table no. 1. Liquidity indicators in the banking system

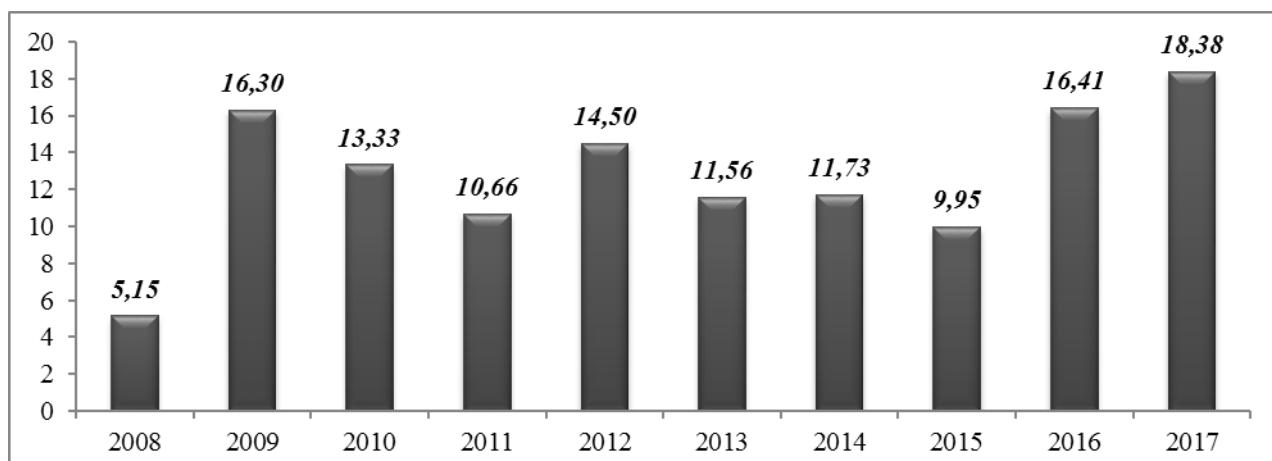
| | 2008 (NAS) | 2009 (NAS) | 2010 (NAS) | 2011* (NAS/ IFRS) | 2012 (IFRS) | 2013 (IFRS) | 2014 (IFRS) | 2015 (IFRS) | 2016 (IFRS) | 2017 (IFRS) |
|--|---------------|---------------|---------------|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Long-term liquidity ratio (coef.) < 1 | 0.64 | 0.61 | 0.67 | 0.70/ 0.70 | 0.70 | 0.71 | 1.54 | 0.70 | 0.64 | 0.61 |
| Current liquidity ratio > 20% | 30.67 | 38.25 | 34.18 | 33.20/ 31.40 | 32.90 | 33.76 | 22.48 | 41.73 | 49.30 | 55.48 |
| Principle III - Liquidity on maturity bands (>1) | | | | | | | | | | |
| - up to 1 month inclusively | | | | | | | | | 2.91 | 2.72 |
| - 1-3 months inclusively | | | | | | | | | 14.85 | 18.56 |
| - 3-6 months inclusively | | | | | | | | | 4.75 | 2.53 |
| - 6-12 months inclusively | | | | | | | | | 4.22 | 2.99 |
| - over 12 months | | | | | | | | | 5.32 | 4.98 |

* Since 1st January 2012, the banks have transitioned from the National Accounting Standards (NAS) to the International Financial Reporting Standards (IFRS).

Source: elaborated by the author based on the NMB's data [online]. [quoted April 22, 2018]. Available: <<http://bnm.md>>

From the perspective of capital and liquidity requirements, banks in Moldova have been in a comfortable position in the recent years. The banking system is struggling with a number of structural problems, aggravated by the 2009 crisis. Mainly, it is the high and rising share of non-performing loans.

If in 2008 we had a share of just over 5%, in 2009 it rose to over 16%. And what we see in recent years is worse than in the crisis year. In 2017, this high share is caused by the portfolios of banks under special administration MAIB and VB, while Eximbank has for years recorded the lowest performance in the system. Banks subject to special supervision are subject to more specific and rigorous regimes on the revaluation and asset classification side.



Source: elaborated by the author based on the NMB's data [online]. [quoted April 22, 2018]. Available: <<http://bnm.md>>

Figure no. 2. The rate of non-performing loans (%)

Regulations on systemic banks. In order to assess the level of stability of the domestic banking system, the degree of concentration of the banking sector activity it is also necessary to be analyzed.

Table no. 2. Banking system's concentration degree (%)

| | 2008 (NAS) | 2009 (NAS) | 2010 (NAS) | 2011** (NAS/ IFRS) | 2012 (IFRS) | 2013 (IFR S) | 2014 (IFR S) | 2015 (IFR S) | 2016 (IFR S) | 2017 (IFR S) |
|---|---------------|---------------|---------------|--------------------------|----------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| TRC* of the 5 largest banks by capital size / Total TRC | 62.01 | 63.46 | 62.75 | 63.40/ 62.70 | 66.60 | 64.15 | 67.48 | 78.84 | 77.79 | 78.12 |
| Assets of the 5 largest banks by asset size / Total assets | 63.34 | 67.91 | 69.26 | 70.10/ 70.30 | 70.30 | 70.43 | 75.85 | 83.90 | 83.42 | 84.00 |

* TRC - Total Regulatory Capital

** Since 1st January 2012, the banks have transitioned from the National Accounting Standards (NAS) to the International Financial Reporting Standards (IFRS).

Source: elaborated by the author based on the NMB's data [online]. [quoted April 22, 2018]. Available: <<http://bnm.md>>

The data shown in the Table no. 2 shows a high degree of concentration of the domestic banking sector and a general trend of growth over the period under review.

Under such circumstances, the risk of „too-big-to-fail banks” persists.

In this context, Basel III and implicitly the new NBM's regulations define the term of „systemic bank” and, as mentioned above, there are specific/ additional capital and management requirements for them. The NBM will carry out a prudential supervision program on a yearly basis for these banks. Based on this program, the NBM may decide to take the following measures:

- a) an increase in the number or in the frequency of on-site controls for the bank;
- b) a permanent presence of NBM's representatives within the bank;
- c) additional or more frequent required reports from the bank;
- d) additional or more frequent analyzes of the bank's operational, strategic or business plans;
- e) thematic controls for monitoring the risks with greater probability of materialization. [1]

The stability of the banking system can also be analyzed through the returns on assets and returns on equity indicators. From the data shown in the Table no. 3, we can see the impact of the crisis on these indicators as well as its positive evolution in the post-crisis years.

Table no. 3. Returns on assets and returns on equity indicators (%)

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------|-------|-------|------|-------|------|------|------|-------|-------|-------|
| ROE | 3.35 | -0.46 | 0.47 | 1.80 | 1.10 | 1.56 | 0.85 | 1.67 | 1.83 | 1.85 |
| ROA | 19.13 | -2.51 | 2.61 | 10.60 | 5.60 | 9.42 | 5.86 | 10.16 | 11.12 | 11.07 |

Source: elaborated by the author based on the NMB's data [online]. [quoted April 22, 2018]. Available: <<http://bnm.md>>

In 2017 year, the national banking system has recorded a return on assets ratio of 11.07%. The return on equity ratio has reached 1.85% in 2017. Although the values of these indicators are below the level recorded before the crisis, they are comparable with the values recorded in the EU's member states.

In conclusion, Basel III does not pose serious challenges for the Moldovan banks from the perspective of Pillar 1. The most fundamental changes come from the perspective of the management framework, which refers to the improvement of the management framework of the banks and their models of corporate governance.

According to the new regulatory framework, the solidity of managerial practices is demonstrated by: availability of competent staff, appropriate policies, an internal control programme appropriate to the size and complexity of the bank's activity, the ability to manage the risks and the existence of an efficient information system.

Staff quality regulations. The quality of the staff is a key point regulated by the new banking law. In order to implement Basel III requirements effectively, the NBM requirement is to be attracted qualified and trained employees in the banks. [3] The new regulations also define the concept of „key staff” and the importance of its experience and qualifications in order to effectively fulfill their responsibilities. Also, depending on key function, the NBM requires the approval of the nominated person or NBM notification after the nominated person is approved by the Bank's Board.

The new regulations refers also to the experience and the skills of the governing bodies' members (the Bank's executive body and the Bank's board of the bank), of the administrators and the shareholders.

Regulations on management bodies. The NBM requests the collective assessment of the members of the management bodies, which is transmitted to the National Bank after approval by the Bank's Board. The assessments contain information on the studies, professional experience, qualifications and abilities of the members of the Bank's executive body and the members of the Bank's board.

According to the Bank's Management Framework Regulation, „The board members shall actively participate in the bank's activities and shall make solid, objective, and independent decisions and judgements.”

Regarding the responsibilities of the Bank's executive body, the Regulation mentions that „The executive body shall know and understand the bank's organizational structure, the risks it generates to ensure that the bank's activities are carried out according to its strategy, risk appetite and policies.” and „shall contribute to healthy corporate governance within the bank, including by its own behavior”. [2]

Shareholding regulations. Regarding the new shareholder requirements, the National Bank seeks to identify those shareholders who demonstr[ate financial weaknesses or influences on the overall situation of the bank. In determining the rating of the shareholders, special attention is given to significant shareholders (any natural or legal person holding at least 5% of the bank's shares).

In order to determine the extent to which they are a source of support for the bank or may pose a potential threat to the entire activity of the bank, their financial statements are analyzed. Where appropriate, the assessment of the quality of an operating firm also takes into account the rating assigned by a specialized rating agency.

Shareholders may or may not be actively involved in day-to-day operations. However, they must clearly demonstrate that the holding of a share package is not detrimental to the bank's performance of sound transactions. The rating assignment for this component is based on the analysis and assessment of some financial, managerial, legal compliance and country risk factors. [4, pag.16]

Rules on Business Ethics and Remuneration Policy. Remuneration requirements are one of the novelties brought by the Basel III Accord. Previously, the business ethics and remuneration mechanisms were considered to be related to market self-regulation. Afterwards, the abuse of bank leaders and the imbalances induced on the market by these abuses changed the regulators' vision. Such criteria for giving bonuses as the volume of granted credits granted, without carrying about their default risk, can generate serious crises. This is why Basel III requires new regulations, which in the national regulatory framework are formulated as follows:

- requirements for the bank's remuneration policy, including remuneration principles and remuneration, fixed and variable remuneration, restrictions on the use of variable remuneration elements;
- reporting to NBM the information on the number of employees who are remunerated with at least 1 million in a financial year, including information on their responsibilities and the field of activity in which these employees are involved;
- reporting to the NBM the aggregate information on remuneration, which will be used to determine the remuneration trends and practices at the level of the Moldovan banking system;
- NBM has the right to impose restrictions on the type and characteristics of variable remuneration elements or to prohibit the use of such elements when it is considered necessary. [2]

Regulations on the independence of internal control functions. According to the new regulations, the NBM requires the mandatory existence of three internal control functions - the risk management function, the compliance function and the internal audit function. These functions must be independent, their independence being ensured by subordination and direct reporting to the Supervisory Board of the bank. The banks must also have at least two specialized committees of the Supervisory Board – the Risk Management Committee and the Internal Audit Committee. The members of these Committees should be the members of Bank's Board with relevant experience in risk management/ internal audit. The NBM shall be notified about the decision concerning the creation of the committees and the approval of their members.

Rules on declaring conflicts of interest. „The bank shall develop and promote a conflict-of-interest policy to identify current or potential relations, services, activities or transactions that could generate conflicts of interest. For this, the bank shall ensure that the conflict-of-interest policy is read and understood by the bank's staff and is complied with.” [2]

The new bank regulations require the declaration of the conflict of interest by the members of the governing bodies and the persons holding key positions. Those statements shall be communicated to the Supervisory Board of the Bank, at least once in a year.

A Register of Conflicts of Interests Statements as well as a Record of Transactions concluded under the conditions of conflicts of interest should also be kept. These transactions are reported to the National Commission for the Financial Market. NBM has no reporting requirements in this context.

In conclusion, the new Basel III Accord aims to strengthen the stability of the banking system by applying demanding standards to improve its ability to absorb economic and financial shocks and to reduce the risk of contagion from the financial sector to the real economy. [6, pag.58]

The new standards are designed to improve risk management framework, to increase banks' transparency and disclosure requirements and to solve the problems of the systemic banks. The measures impose, first of all, more demanding standards on capital adequacy, liquidity requirements and leverage effect, the main purpose being to mitigate the negative effects of the financial crises. [6, pag.58]

Each bank must have a management framework rigorously designed that includes a clear organizational structure with well-defined, transparent and consistent accountability lines, effective processes for identifying, managing, monitoring, and reporting the risks to which the bank could be exposed or it is exposed, a capital adequacy risk assessment process, a liquidity adequacy assessment process, adequate internal control mechanisms, including rigorous administrative and accounting procedures, and remuneration policies and practices that promote and are in line with an effective risk management. [2]

The differences between the Basel III Accord and the previous agreements are that „first, it is more comprehensive in its scope and, second, it combines micro- and macro-prudential reforms to address both institution and system level risks. [7, pag.3]

Meeting the requirements of EU regulations requires the domestic banking system to shift from compliance-based to risk-based surveillance. It is expected that the new banking regulations will induce good banking risk management practices and will have an impact on viability of each bank from the system and of the banking system as a whole. The current circumstances in the banking sector require systemic coherence of the NBM regulations and a strengthening of intervention capacities. Licensed banks must strive to reduce the risk of non-compliance and be prudent in their business decisions and strategies.

REFERENCES:

- 1.Law on bank's activities, no.202 of 6th October 2017
- 2.Regulation on internal governance and risk management in banks
- 3.Strategy for implementing the BASEL III standards in the Republic of Moldova under the legal framework of european legislation
- 4.DARDAC, Nicolae, MOINESCU, Bogdan. *Politici monetare și tehnici bancare – note de curs*, Bucharest: 2007. 153 p.
- 5.JORA, Octavian-Dragomir, BUTISEACA, Alexandru. The political philosophy and the political economy of public regulation. An apropos on the ultimate cause of the current crisis. In: *Romanian Economic and Business Review*, 2010, ISSN 1842-2497
- 6.NUCU, Anca Elena, *Provocările Basel III pentru sistemul bancar românesc*. In: *Economie teoretică și aplicată*, 2011, pp.57-68, ISSN 1841-8678
- 7.WALTER, Stefan. Basel III: Stronger Banks and a More Resilient Financial System, Conference on Basel III, Financial Stability Institute, Basel, 2011, <https://www.bis.org/speeches/sp110406.htm>

DETERMINATION OF THE COMMUNITY NORMATIVE FRAMEWORK ON REDUCTION OF CUSTOMS CONTROL BARRIERS AS A MEASURE OF ASSURANCE OF ECONOMIC SECURITY AND INTERNATIONAL TRADE SECURITY

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Abstract. The Customs Service, being often perceived as a revenue collector, assumes the function of the guardian of the security and safety of international trade. In the process of the fulfilment of these functions, the Customs Service functions so as to meet the expectations of economic agents. Economic agents involved in legal business activities expect from the customs authorities the combating of black economy in the trade of illegal goods, on the one hand, and reduction of control measures, on the other hand, because they affect negatively the time and the costs of business development. The catalog of solutions that facilitate customs procedures was significantly expanded in recent years within the EU.

Keywords: Customs service, economic security, international trade, customs control.

Introduction (with indication of the purpose of the research).

Assurance of the security and safety of international trade, including the legal transit of goods within the customs territory of the EU, is one of the most important tasks of the customs administrations, immediately after the collection of customs duties. Among all economic operators involved in international trade there are traders that adapt their methods and are willing to bear the costs necessary for transit of goods in a legal manner, but there are others that deliberately ignore regulations in order to obtain profits or a rapid competitive advantage. The scale of international trade, as well as the current economic and technological framework, create favourable conditions for the freedom of economic activity, on the one hand, but also impel the abuse in the customs/fiscal domain, on the other hand. As a consequence, the role of the customs authorities in the process of the assurance of security and safety of commodity trade is a priority.

The customs authorities, services that have full competence within the supervision and control of all goods transited through customs borders, must implement solutions that are modern and coherent throughout the European Customs Union and can serve as a good example to follow also for the Customs Service of the Republic Moldova.

The purpose of the paper is to characterize the most important solutions as well as to assess their impact on the efficiency of the actions taken by the customs authorities in the process of the assurance of security and safety of international trade.

1. Legal conditions for the reduction of customs barriers in the context of international trade security

The main reason for the reduction of barriers are the customs procedures within the EU, which were part of the SAFE Framework of Standards of the World Customs Organization on security and facilitation of international trade (WCO SAFE Framework). The document, adopted in June 2005, introduced modern standards of supply chain security, enhancing the involvement of the customs authorities in the creation of economic security of individual countries, and simplification of the legitimate movement of goods. The WCO SAFE Framework contains standards for the exchange of information between customs administrations in different countries (Customs-Customs pillar), as well as those referring to partnership between customs authorities and operators – participants in international supply chains.

The introduction of certain high standards regarding the security that would not impede the legal trade took place in 2005 as a result of the amendments introduced in the Community Customs Code adopted by the European Commission [Regulation (EC) No. 648/2005]. Following the introduction of the amendments, the European Commission recommended [Regulation (EC)

648/2005] to establish an equal level of protection in customs controls as well as its uniformity by Member States on the basis of mutually agreed standards and risk criteria for the selection of goods and economic operators in order to minimize the risks for the Community both for its citizens and for the commercial partners of the Community that can be achieved by introduction of the community risk management framework.

In article 13 [Regulation (EC) No. 648/2005] it is clearly provided that customs controls are based, usually, on analysis of risks, using automated data processing techniques. In addition, legitimate and trusted operators can benefit from the facilities provided by customs and/or simplification norms with regard to customs controls related to safety and security by granting the status of “Authorized Economic Operator” (AEO). A key factor that contributed to the simplification of customs procedures was the decision of the European Parliament and the Council on the pan-European electronic customs system [Decision No. 70/2008 / EC], the implementation of which was possible by virtue of the e-Customs program¹⁴.

In response to the amendments introduced in the Community Customs Code in 2005, a common framework for supply chain risk management was prepared. This includes: identification and control of the circulation of high-risk goods using common risk criteria; contribution of the Authorized Economic Operators (AEO) to a customs-commercial partnership for assurance and facilitation of legitimate trade; and security risk analysis prior to arrival/departure on the basis of cargo information transmitted electronically by traders prior to arrival or departure of the goods to/from the EU.

The role of the customs authorities regarding the assurance of the security and safety was explained in the mission statement, on the one hand, in the Modernized Community Customs Code and subsequently in the regulations of the Customs Code of the Union (Regulation (EU) No. 952/2013, art. 3]: “*The customs authorities are primarily responsible for supervision of international trade of the Union, contributing in this way to fair and open trade, at implementation of the external aspects of the internal market, of the common commercial policy and the other common Union policies affecting trade and global security of the supply chain*”.² The measures instituted for the execution of the above mission statement include, inter alia, protection of the EU against illicit trade, supporting at the same time legitimate activity of enterprises as well as maintenance of an appropriate balance between customs controls and facilitation of legitimate trade [Regulation) No. 952/2013, art. 3].

2. Essence and impact of the simplifications of customs control on the effectiveness of economic security execution by the Customs Service

Economic operators, at different stages of trade - from the production of goods up to delivery to the consumer living within another customs territory, become participants in the international supply chain. Each trader from a particular chain can perform more than one role or may be part of several supply chains at the same time. The movement of goods in the international supply chain is of fundamental importance in the domain of security and safety. A secure supply chain is an important source of benefits and profits for an operator that develops his activity in accordance with legal regulations. Furthermore, it allows the customs authorities to focus customs controls on high-risk areas, while accelerating the flow of legitimate trade¹⁵.

It should be mentioned that in recent years the Customs Service of the Republic of Moldova achieved positive results in cooperation with WCO, among which we can enumerate the following results:

- planning and implementation of strategic priorities of customs system development;

¹⁴ Decision No. 70/2008 / EC of the European Parliament and the Council of January 15th, 2008 on a computerized environment for customs and trade, Official Journal of the European Union L 23/21, 2008.

¹⁵ Świerczyńska J. (2014), *Bezpieczeństwo i ochrona rynku jako priorytetowy obszar działania europejskiej służby celnej* [in]: J. Rymarczyk, M. Domiter, W. Michalczyk (eds.), *Przemiany strukturalne i koniunkturalne na światowych rynkach*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław

- inclusion of the Customs Service of the Republic of Moldova in pilot projects of the assistance of WCO for the purpose of the implementation of Framework Standards on Security and Facilitation of World Trade of 2005;
- support of the reforms developed in the customs system;
- presentation of the Customs Service of the Republic of Moldova on the international plane, through participation in various events organized for member states.

For the facilitation of legitimate trade and the fight against fraud, the Customs Code introduces mechanisms of the customs legislation simplification that would allow the use of modern instruments and technologies, following to be promoted in the future the uniform application of customs legislation and modern approaches of the customs control, contributing in this way to the assurance of a basis for simple and efficient customs clearance procedure.

It is also assumed that the information provided by the economic agents to be used jointly by the customs authorities and other institutions involved in this customs control. The executed controls are to be harmonized, so as the economic agent will provide information only once and the goods to be controlled by these authorities in the same moment and in the same place. All decisions regarding the application of customs legislation, including mandatory information, would be subject to the same norms. Any such decision should be valid in the entire Union and could be annulled, amended, to the extent except as otherwise provided or revoked, in case it is not in conformity with customs legislation or with its interpretation.

Foreign economic activity is connected, first and foremost, with the transit of customs frontier of goods and transport facilities, both by natural and legal persons. These at their turn are subject to the customs control and customs clearance. Applying to normative basis, the customs authorities on the basis of art. 11, let. b) of the Customs Code of the Republic of Moldova “ensure compliance with customs and fiscal legislation”.³ We specify that, along with customs control, customs authorities compile customs documents and fulfil other functions connected with the assurance of foreign economic activity. We conclude that in this way customs authorities can be attributed to control authorities, the domain of activity of which involves a separate compartment of social relations.

Strategic Program VAMA2020 (CUSTOMS 2020) is the main strategic planning document of the Customs Service, which determines the medium-term priorities of the development of institution. The program aims to guide the Customs Service for the purpose of the fulfilment of the vision, mission and contribution to achievement of the objectives resulting from the Governance Program.

Customs Service of the Republic of Moldova develops partnerships with international and European institutions and authorities, including the World Customs Organization/WCO, the European Union, through the European Union Border Assistance Mission to Moldova and Ukraine/EUBAM, the European Union High Level Policy Advice Mission /EUHLPAM, TAIEX and TWINNING, European Neighbourhood and Partnership Instrument, the Southeast European Law Enforcement Centre/SELEC, the European Anti-Fraud Office/OLAF, international partners such as the United Nations Conference on Trade and Development/UNCTAD, United Nations Development Program/UNDP, Development/USAID, World Bank, International Finance Corporation of World Bank Group, as well as foreign customs authorities.

The role of external assistance in modernization of the customs system is a significant one. In recent years, numerous activities developed with external assistance were aimed at the consolidation of the capacity of the Customs Service through the provision of consultancy on the standards and the best practices in the customs field at European and international level, organizing seminars, conferences, study visits as well as assistance in harmonization of customs regulations with those of the EU. Due to technical assistance, the customs service was equipped with customs control equipment, such as contraband scanning and detection equipment, vehicles for laboratory mobile and customs units. Projects of customs posts infrastructure modernization as well as a TWINNING program for the implementation of the single window concept and of the new computerized transit system (NCTS) were initiated with the support of the EU funds.

The Customs Service aims at the maintenance of a balance between control measures and trade facilitation. The measures planned to simplify the customs procedures will be aimed at the reduction of the costs of voluntary compliance with customs regulations and, at the same time, increase the efficiency of customs control. The priority measures for facilitation and assurance of trade implemented in a coherent and systematic manner will create conditions in which compliance with customs regulations will be easy to assure and difficult to avoid. For this purpose, customs regulations are adjusted to make them simpler, more predictable and accessible to business environment and travellers, so that the risks of fraud could be identified in advance and treated in an appropriate manner.

In addition to simplifications resulted from the EU legislation, customs authorities of the Republic of Moldova introduced additional privileges of organizational and technical nature, the so-called "good practices". These include: priority processing of customs declarations and all types of requests (priority service); the places designated for customs procedures; separate strips at border crossing points; newsletters; guarantee is not required (if not compulsory); more optional facilities for operators that receive simplified procedures privileges.

The implementation of the Authorized Economic Operator Program allows the creation of the so-called secure supply chains, and therefore the customs authorities should encourage operators to participate in the program, stressing that several links in the international supply chain have the status of AEO, the greater is the possibility to benefit from advantages.

In accordance with the EU standards, in the European Union it is implemented a system by means of which it is carried out customs control on the basis of risk analysis of the selected operators. The reason for use of the given method is based on the assumption that since it is not possible to verify all people, vehicles and goods crossing the border, the control measures should be aimed only at persons suspected of illicit practices. This approach to customs control means that it is not "absolute control of all", but rather a selective activity for certain fields. The level of risk is established on the basis of data and information from customs authorities, authorizations and controls, as well as tax declarations and audits. The information that is considered important refers, for example, to the parties involved in transaction, type of goods, transit route, direction of transport.

Customs authorities, at the first point of entry, decide, on the basis of the severity of the presented risk, whether verifications are required and, if so, are to be carried out at the border or at the place where the cargo is unloaded (the results are sent to customs, to authorities of the member states via an electronic message).

The risk analysis system is completed by the segmentation of economic operators that includes: classification of operators in groups regarding the level of the risk of violations (low, medium, high); and exclusion from this process of those operators that were previously verified by the customs authorities in the course of an audit, i.e. those that issued a permit for simplified procedures or those holding the AEO status. In case of operators classified as pertaining to low or medium risk segment, activities of the customs authorities focus on risk monitoring. However, those belonging to the high-risk group, related to intentional violation of regulations, the activities are focused on control, the purpose of which is to verify whether an operator is fulfilling his obligations.

An essential part of the control activities carried out by the customs authorities is the control of the accepted customs declarations. All accepted declarations are evaluated through automated risk analysis in operating systems of the Customs Service and some of these are controlled. The practice of the presentation of customs declarations electronically is more effective.

Based on the risk analysis combined with the modern technical infrastructure (for example, modern scanning equipment) and knowledge of customs officers, effectiveness of the detection of irregularities is improved and, at the same time, control activities are rationalized. It should be stressed that despite the increase of traffic, the waiting time for customs clearance decreases, while the number of checked vehicles per day at the crossing of border is increasing.

CONCLUSIONS.

The Customs Service is actively present in all fields related to international trade. The current economic and technological conditions contributed to modification of the duties of customs authorities. As the guardian of economic security, the customs authorities assumed the role of leader in the supply chain and became a catalyst of the competition between enterprises. Making a compromise between the number of solutions designed to reduce the barriers or administrative burden and the need for effective customs control that directly affects economic security, is a very difficult task. The selective customs control system, based on the risk analysis of the designated operators, is certainly a good direction and should be continued.

The performance of control activities based on the risk analysis system brings benefits such as reduction of control-related inconveniences as well as increase of the effectiveness of non-compliances detection.

In addition, the Authorized Economic Operator Program is evidence that the reduction of barriers and implementation of innovative solutions that simplify the customs procedures allow the increase of the supply chain security. It can be concluded that the pro-innovative activities carried out by the customs authorities allow effective combating of customs offenses and the protection of the EU market facilitating at the same time the legitimate trade.

Summarizing the information presented in this subparagraph, I am of the opinion that the organization of control activities within the EU area has also a special role for the customs area of the Republic of Moldova. At the same time, before the customs authorities there are established the objectives and responsibilities of the protection of economic sovereignty of the state, assurance of economic security.

BIBLIOGRAPHY:

1. Customs Code of the Republic of Moldova No. 1149-XIV of July 20th, 2000. Republished: Monitorul Oficial of the Republic of Moldova special edition of January 01st, 2007, page 103
2. European Commission (2013), Communication of the Commission to the European Parliament, European Economic and Social Council and Committee on Customs Risk Management and Supply Chain Security, Brussels, p.4
3. Decision No. 70/2008 / EC of the European Parliament and of the Council of January 15th, 2008 on a computerized environment for customs and trade, Official Journal of the European Union L 23/21, 2008.
4. Decision of the Government of the Republic of Moldova No. 590 of May 28th, 2007 for approval of the Action Plan for the Implementation of World Customs Organization (WCO) Recommendations in Accordance with the Framework Standards on Security and Facilitation of World Trade. In: Monitorul Oficial of the Republic of Moldova, 2007, No. 74-77 / 622
5. Strategic Program Customs 2020, Order of the Customs Service No. 126-O of April 06th, 2017, www.customs.gov.md
6. Regulation (EC) No. 648/2005 of the European Parliament and of the Council of April 13th, 2005 on amendment of the Regulation (CEE) No. 2913/92 of the Council of Community Customs Code establishment, Official Journal of the European Union L 117 of May 04th, 2005
7. Regulation (EU) No. 952/2013 of the European Parliament and of the Council of October 9th, 2013 on the establishment of the Customs Code of the European Union (reformation), Official Journal of the European Union L 269/1, 2013.
8. Świerczyńska J. (2014), *Bezpieczeństwo i ochrona rynku jako priorytetowy obszar działania europejskiej służby celnej* [in]: J. Rymarczyk, M. Domiter, W. Michalczyk (eds.), *Przemiany strukturalne i koniunkturalne na światowych rynkach*, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław

EDUCAȚIA – PARTE COMPONENTĂ A CALITĂȚII POPULAȚIEI ÎN REPUBLICA MOLDOVA

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Abstract: The “population quality” term appeared recently as a new demographic one. It is formed from some categories of indicators: health, education, culture and demographic one. This work analyses the education category, from the perspective of evaluating the population quality as an integral indicator. In order to evaluate more correctly the education level of population, there were analyzed some qualitative demographic indicators, as: literacy rate, school enrolment rate and the expected years of schooling in the Republic of Moldova. Using the statistic method, there were calculated the above mentioned indicator’s indexes and the education index, in order to evaluate more comprehensive the qualitative level of education in the country.

Key words: education, enrolment, schooling, population quality, index.

JEL CLASSIFICATION: J24.

INTRODUCTION

Education signifies the formation of a person in a field through accumulation of intellectual, moral and cultural knowledge. This characteristic is very important for determining the population quality level, emerging from the fact that only the intellectual level of a person or a society determines the country development in economic and social terms. So, the category of *Education* is one of the most important components of *Population Quality*.

The Republic of Moldova is characterized by a high human potential that is elucidated by some qualitative demographic indicators, for example: the level of education, the education quality, the duration of studies and the recognition of specialists on regional and global scales. In this way, the importance of studying the evolution of the educational level is crucial, in order to evaluate the population quality in the country.

MATERIALS AND METHODS

One of the definitions of the term ”population quality” after the American economist Carl Mosk is: ”...the population quality is the environment composed by the population potential of being able and having the capacity to do a job. These two indicators are understood from the mental and physical aspects.” [1, p.4]. The author’s point of view elucidated that the intellectual aspect is very important in formation of people’s capacities and competences of in order to create the category called ”population quality”. Besides the fact that education is an important factor for the economical development of a country, the cultural component is also very important, but it is frequently influenced by the education level. These two mentioned categories (education, culture) influenced the increase or decrease of the population quality level. After the Russian economist Butov B.I. ”...the population quality includes the general and technical literacy, the staff qualification, the structure of employment, the society workforce strength that include: the number of workers by the level of education: secondary, general, special and high, scientists, engineers, technicians and other workers” [2, p.419]. The scientist comes into notice, especially economic aspects of the population quality, but the author mentioned clearly the importance of the population education level for the population quality formation. In this way, it is necessary also to analyze the young and elderly population, their level of education being very important, because the final object of this study is to evaluate the population quality as whole.

There were used some quantitative methods (historical method, analytical method) and qualitative ones (statistical method) for a correct determination of the population education level in the Republic of Moldova. Using the historical and analytical methods, there was analysed different statistical data of the category “education”. After that, the statistical method was used, in order to determine more objectively the population educational level in the Republic of Moldova, and also

to calculate the *education index*. This index will represent the changes in time and in the territorial aspects of the population education. The education index is calculated using the next formula:

$$J_{ij}=1-\frac{X_{j,opt.}-X_{ij}}{X_{i,opt.}-X_{i,min.}},$$

where J_{ij} represents the analyzed demographic indicator index, $X_{j,opt.}$ represents the optimal value of the analyzed indicator, $X_{i,j}$ represents the real value of the analyzed indicator in that year, $X_{i,min.}$ represents the minimum value of the analyzed indicator. The education index will be calculated as the arithmetical mean of three indexes, which were determined using the above mentioned formula. In this way, there were choose the next demographical indicators: expected years of schooling, enrolment rate in education and literacy rate. The used method is argued by Russian economist A. A. Sagradov, who mentioned in one of his articles that the arithmetical mean could be a more relevant method in analyzing the qualitative level of population, because this value will describe more completely key-aspects of the population activity and will reflect more obviously the components of population reproduction [3, p.181].

RESULTS AND DISCUSSIONS

This work will present the results of the specific demographic indicators analysis, in order to point out the education component of population quality. The final object of this study is to calculate the education index. This index helps in evaluating more correctly the qualitative education level of the population in the Republic of Moldova.

The enrolment rate in education by age/age groups is one of the specific indicators that show us the access of population to qualitative education. Parent's culture has a very powerful impact on their children's enrolment in education too. The enrolment rate represents the total number of pupil of an age/age group, indifferently of their education level, as percentage ratio from the total population number of the same age/age group.

Analyzing the enrolment rate by levels of education, a significant increase of pre-school education could be observed, starting with 1999th to 2014th, increasing almost twice (fig.1). This fact shows the growing interest of parents to enlist their children in the education process, from the pre-school age, but also their necessity to continue the professional activity. The pre-school system of education adjusted its activity with the implementation of some education projects and action plans, for example: The National Plan of Action "Education for all", the project "Education for all – the Initiative for Rapid Action". These actions influenced the continuous growth of the enrolment rate in pre-school education. So, in 1999-2000 the rate was 44,1%, reaching to 83,8% in 2013-2014. The Republic of Moldova governance proposed to increase the enrolment rate to 95% in 2010 year, according to the "Strategic Plan for education costs, 2008-2010". But, it could be observed that the number hadn't reach the proposed rate neither in 2016 year (87,6%). On the whole, there is proven that children who attend kindergartens have more communicative and social knowledge and learning habits. The fitting into school groups of children who had not attended a kindergarten is more difficult and their adaptation too. They get school performance much harder and their accommodation to school group is more difficult too. In this way, the pre-school education lays the foundation of the qualitative development of future pupils, students and even professionals.

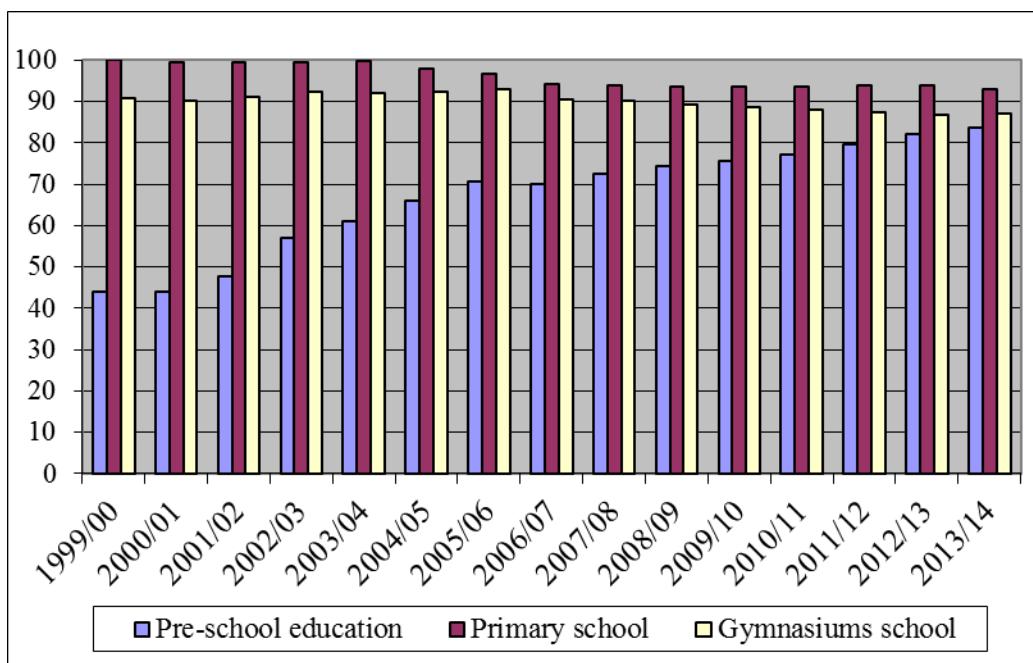


Fig. 1. The enrolment rate in education by levels of education, 1999-2014

Source: calculated by NBS

The enrolment rate in primary education registered a slow but certain diminishing during the analyzed period (1999-2016). In 1999 the rate was 100,1%, but in 2016 its value decreased to 91,8%. This fact shows a lack of screening and prevention mechanisms of school abandonment and limited enrolment. It is obvious that in the absence of such a mechanism, a lot of children remain outside school, without achieving their right to study. The rate value in Romania is 92,8% for 2013 year, a quite law number that shows common problems of the neighbouring countries in this field.

The enrolment rate at the gymnasium level of study decreased too, with 3,7% for the analyzed period. This fact emphasized once again old problems in the education system and of the society of our country. One of these problems could be the access to study that is directly linked with the population standards of living. So, the long economic crisis in the Republic of Moldova, poverty, unemployment, corruption affected once again the education quality and the realization of the right to study. The most vulnerable families are the numerous ones, these families being affected more than others by poverty and low standards of living. The problem is influenced by other demographic problems in the country, for example of the low birth rate. The young family don't hurry to give birth children, because of the lack of state support and the created economic and social conditions. So, there are many demographic processes and economic problems that influence the education level of population in the country.

The literacy rate is another specific indicator of the population quality education. Even if this indicator is a generalized one, it includes a lot of other demographic indicators from the education category, for example: the enrolment school rate, the number of students by levels of education (especially – pre-school and primary), the number of education institutions, the number of teachers etc. Essentially, the literacy rate is an indicator of knowledge in a country, which determines directly the economic development of the state. Also, it is one of the most principal right of people and the base of the personal development, being essential for social and economic development of a state. It is a tool for going up the population health, to raise incomes and to improve the relations between states, both at the personal and national interests. In the Republic of Moldova, the literacy rate increased during the last decade (1999- 97,9%), becoming in 2004 year quite high – 99,87%. The literacy rate felt suddenly during the next year (2004-2005). This fact could be explicated by different databases. For 2004 year there was taken into account data from population census, counting the number of persons who knows to read and write, without graduating primary school.

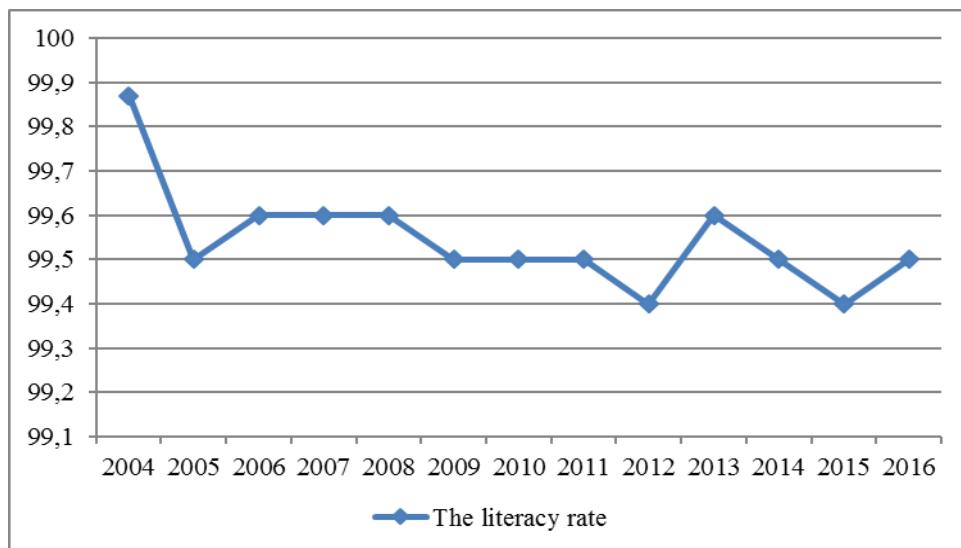


Fig.2. The literacy rate evolution in the Republic of Moldova, 2004-2016, (%)

Source: NBS

Starting with the 2005 year, the data are offered by the Labour Force Survey, where the literacy rate was calculated taking into account persons who graduated at least primary school. The next period is characterized by a process of decrease or stagnation, starting with the 2006 year when the literacy rate was 99,6%. This value has been maintained for the next three years, and the other next three the number decreased with 0,1% towards the last years. The 2012 and 2015 years the number registered minimum values for the last 10 years – 99,4%. Only in 2013 year the rate went up registering the highest value for the last 8 years (99,6%) being equivalent with the period of 2006-2008 years. The 2016 year registered a slow decrease again – 99,5%.

The literacy rate of the Republic of Moldova is quite high in comparison with other European states. The international statistics show that our country registered in 2012 year a literacy rate of 99% (table 1). The literacy rate in the Republic of Moldova was higher than in states as Belarus, Estonia and Slovenia. There were registered differences by age groups in some countries, also in the Republic of Moldova. This fact could be explained by the law number of people born before the soviet period, when the primary education hadn't been compulsory and many children had not graduated even primary school, so they remained illiterate.

Table 1. The literacy rate by age group (young, adult) in the Republic of Moldova and in some state from Europe, 2012 (%)

| State | The literacy rate of adult over 15 year old | The literacy rate of young people 15-24 year old |
|---------------------|---|--|
| Belarus | 100 | 100 |
| Estonia | 100 | 100 |
| Slovenia | 100 | 100 |
| Croatia | 99 | 100 |
| Republic of Moldova | 99 | 99 |
| Bulgaria | 98 | 98 |
| Serbia | 98 | 99 |
| Romania | 98 | 97 |
| Greece | 97 | 99 |
| Portugal | 95 | 100 |

Source: UNESCO Institute for statistic www.uis.unesco.org (access 31.10.2017)

**Table 2. Expected years of schooling in primary – tertiary education, 2010/2011,
 2014/2015**

| State | 2010/2011 | 2014/2015 |
|---------------------|-----------|-----------|
| Belarus | 15,59 | 15,70 |
| Hungary | 15,37 | 15,37 |
| Slovenia | 16,80 | - |
| Ukraine | 15,06 | - |
| Republic of Moldova | 11,85 | 11,36 |
| France | 16,11 | - |
| Serbia | 14,02 | 14,55 |
| Romania | 15,33 | 14,93 |
| Spain | 17,22 | 17,88 |

Source: Education in the Republic of Moldova. Statistical Publication 2016/2017, p.131

The number of years spend studying speaks in a special way about the education level in a country. The expected years of schooling as a demographic indicator represents the number of years spend in education by a child of 3 years old. This is a new indicator, published recently in the demographic terms nomenclature. In the Republic of Moldova this indicator's data appeared later and only at national level. The Republic of Moldova indicator's data are lower than in other European countries, both from East or West parts of Europe (table 2). For example, the expected years of schooling in Romania are 15,33 years, more with 4,45 years than in our country, while they are ahead of state as: Spain – 17,15 years, Slovenia – 16,80 years, Belarus – 15,59 years (table 2). Among the states from East, West, Central Europe and some states from Asia (former Soviet Union countries), the Republic of Moldova surpasses only three countries: Azerbaijan (11,76 years), Uzbekistan (11,60 years) and Tajikistan (11,51 years). There is clear that Republic of Moldova needs many forces and hard work in order to diminish the impact of historic consequences and the way to increase the education level, so, the qualitative one and the human potential of the state.

The expected years of schooling is a demographic qualitative indicator, because the number of years that a person spend studying form a qualitative professional and an educated member of a society. The expected years of schooling determines also the future incomes of persons who study. There is proved by statistical data that persons who spend more years studying have higher salary. In this way, there is obvious the link from the development level of a state and the education level of population in a country.

The expected years of schooling index registered a general trend of diminishing in the Republic of Moldova, excluding some years of insignificant increase (table 3). From 2005 year when the index value was the highest (1 unit) to 2008 year the index value decreased with 50 % and registered 0,50 unit. After that the index increased insignificantly, becoming with 0,06 unit higher for 2012 than for 2008 year. From 2012 to 2016 years the index value have been decreasing rapidly, registered the minimum of 0 units in 2015 year. The evolution of the expected years of schooling index shows some realities in our society nowadays, for example the loss of interest of young people for studies, caused by the uncertain future offered by this study, preferring to emigrate or to start their professional activity in an unskilled domain, where the salary is equal or higher than of a skilled workers. The study is one of the most important factors that influence a higher level of population quality in the country. One of the solutions could be to offer better conditions of study and better perspectives after graduating for young people. Also, the possibility to work part-time during the period of study is important because of the students possibility to earn additional incomes and continue their studies.

The school enrolment rate is another demographic indicator taken into account in determining the education index. It shows the correlation of children and young people who study from the total number of the same age group persons. The indicator's data points out the development process of the education system in the country that influences the level of studies quality. A future professional

should attend each level of education, only in this way he/she will contribute to social, cultural and economic development of the country.

The dynamic of the school enrolment rate index shows different period of changes (of increase or decrease), but the general trend shows an increase during the period of 2005-2016 years. During the period of 10 years the index grows with 100% or with 1 unit, registered in 2006 the lowest value – 0 unit and in 2016 the highest one – 1 unit. This process has a direct impact on other qualitative indicators of education, for example on the literacy rate or on the level of the workers professionalism.

Table. 3. The qualitative population indicator and their indexes, the population education index in the Republic of Moldova, 2005-2015

| Year | The expected years of schooling (years) | The expected years of schooling index (un.) | The school enrolment rate (%) | The school enrolment rate index (un.) | The literacy rate (%) | The literacy rate index (un.) | The population education index (un.) |
|------|---|---|-------------------------------|---------------------------------------|-----------------------|-------------------------------|--------------------------------------|
| 2005 | 11,73 | 1 | 86,80 | 0,58 | 99,5 | 0,5 | 0,693 |
| 2006 | 11,5 | 0,66 | 85,00 | 0 | 99,6 | 1 | 0,553 |
| 2007 | 11,53 | 0,71 | 85,57 | 0,18 | 99,6 | 1 | 0,630 |
| 2008 | 11,39 | 0,5 | 85,77 | 0,25 | 99,6 | 1 | 0,583 |
| 2009 | 11,41 | 0,53 | 85,93 | 0,3 | 99,5 | 0,5 | 0,443 |
| 2010 | 11,43 | 0,56 | 86,27 | 0,41 | 99,5 | 0,5 | 0,490 |
| 2011 | 11,41 | 0,53 | 86,97 | 0,64 | 99,5 | 0,5 | 0,557 |
| 2012 | 11,43 | 0,56 | 87,53 | 0,82 | 99,4 | 0 | 0,460 |
| 2013 | 11,27 | 0,33 | 87,97 | 0,96 | 99,6 | 1 | 0,763 |
| 2014 | 11,12 | 0,11 | 87,70 | 0,87 | 99,5 | 0,5 | 0,493 |
| 2015 | 11,04 | 0 | 87,87 | 0,93 | 99,4 | 0 | 0,310 |
| 2016 | 11,09 | 0,07 | 88,07 | 1 | 99,5 | 0,5 | 0,523 |

Source: calculated by author, using NBS data

The last calculated index is the literacy rate one. The literacy rate values differentiate slightly with few tenths, from 99,4% to 99,6% during the period of 11 years. The literacy value is well compared with other states or with the maximum possible value (100%). So, the good part of education in Republic of Moldova is high values of the literacy rate during the whole analysed period.

The population education index represents the real level of population education in numbers (values that could be measured). In this way there is possible to analyze the education level in evolution, to point out causes and consequences of changes in time. During the analyzed period (2005-2016), the index value varies from year to year, but registered a general trend of decrease (fig.3), from 0,693 units (2005) to 0,523 units (2016). The index gone down with 0,17 units or with 36,5 % during this period, expected 2013 year, when the index value increased to 0,763 units, caused by the higher values of the school enrolment rate (87,97%) and of the literacy rate (99,6%). During the period of 2013-2015 years the index value decreased sharply with 0,453 units or with 59 % for 2015 year than the 2013. An accentuated decrease for a short period of time (2 years) noticed the existence of problems in the education system of the Republic of Moldova. This field should be one of the major interests in each country, especially in the Republic of Moldova, emerging from the economic situation nowadays. One of the most important factors to improve on the created situation is to invest in people, initially in their education. Only in this way, the labour force quality will growth and will support surely the economic evolution.

During the last analyzed year, the education index is higher, due to the higher school enrolment rate, that registered a maximum of 88,07 %. Other two indexes growth insignificant, the expected years of schooling index with 0,05 units and the literacy rate index with 0,5 units more for 2016 year than in 2015 year (table 3).

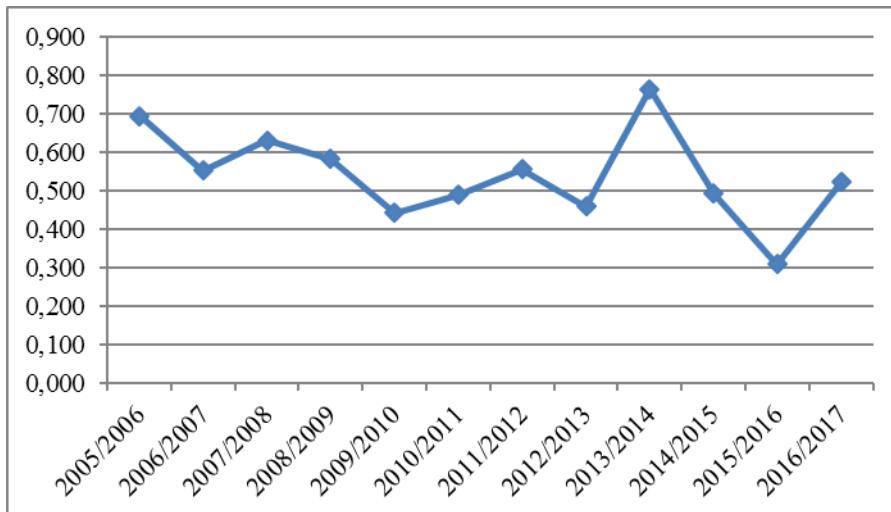


Fig. 3. The evolution of the education index in the Republic of Moldova, 2005-2016

Source: calculated by author, using NBS data

CONCLUSIONS

The education index analyses shows an instable situation of education in the Republic of Moldova, during the whole period, especially during the last 2 years. This fact represents a point of interest to continue the study, in order to make possible to deduce correct conclusions and perspectives about the evolution of the qualitative level of education in our country. Now, there is clear that:

- The general trend of the education index evolution is falling;
- The education index differences from year to year point out the unstable situation in education system as whole;
- The process of economic and demographic transition affected the education system too;
- Knowing, more objectively, the level of education, especially the qualitative one is very important in making strategies for a future development;
- Only investing in qualitative education, there will be possible to develop the country (social, cultural, economic).

REFERENCES :

- 1.Mosk, Carl. Making health work: Human Growth in Modern Japan. Berkeley, Calif: University of California Press, 1996 – 156 p.
- 2.Бутов, Б.И. Демография. Издательский центр Март, Москва – Ростов на Дону, 2003 - 593 ст.
- 3.Саградов, А.А. Теория и методы изучения качества населения. Москва, 1995 – 239 ст.
- 4.UNESCO Institute for statistic www.uis.unesco.org (access 31.10.2017)
- 5.Education in the Republic of Moldova. Statistical Publication 2016/2017, p.133
- 6.National Bureau of Statistics of the Republic of Moldova

DISTRIBUȚIA TEMPORALĂ ȘI SPAȚIALĂ A FÂNTĂNELOR DE MINĂ ȘI IZVOARELOR IN BAZINUL RÂULUI PRUT AL REPUBLICII MOLDOVA PE PERIOADA 2011-2017

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Abstract. The purpose of this research consists in determining the water abstraction points in the Prut River Basin such as Mine wells and Springs for the period of 2011-2017. The main topics in this research article are Mine wells and Springs in the Prut River Basin of the Republic of Moldova.

Keywords: Mine wells and Springs in the Prut River Basin of R. Moldova for the period 2011-2017.

JEL CLASSIFICATION: Q2

INTRODUCTION

The current situation regarding the water quality and quantity in the Prut River Basin in the Moldovan Territory is not satisfactory because of many reasons. One of the reasons is that we do not know exactly the number of abstraction points situated there, to whom they belong and what amount of water is extracted there. All these uncertainties lead us to the fact that we cannot efficiently estimate the actual Water Balance in the Prut River Basin and as result to the entire Republic of Moldova.

For this reason was collected official data from the Ecological Inspectorates [5] situated in the Administrative units (the Districts), which fall within the Prut Transboundary River from the Moldovan side. This data consisted of Mine wells and Springs for the period of 2011-2017 years.

The Objectives of this research article were to identify and analyze spatial and temporal distribution of the Mine wells and Springs situated in the Prut river basin for the analyzed period of time.

Study Area

The study area of this research article is the basin of the Prut river, which is the second largest basin in the Republic of Moldova, after the Dniester River Basin.

This approach, on a River Basin Catchment is very necessary in Republic of Moldova since, until recently all the analysis were performed based in Administrative Units. This new approach complies with the EU Water Framework Directive [4] requirements.

The population living in the Prut River Basin is about 798700 inhabitants [2] which depend on the water resources available in this river basin.

The Prut River (Fig.1) is one of the largest rivers in Western Ukraine, the Republic of Moldova and Romania, also is one of the main tributaries of the Danube River. The Prut hydrographic basin is crossing three neighboring countries. Of the total area of the basin, 28% belongs to the territory of the Republic of Moldova, 33% in the territory of Ukraine and 39% in the territory of Romania. The **Prut River** springs from the south-western slope of Mount Hoverla, about 15 km south-east of the Vorokhta village, from the Cernahora massif of the Carpathian Mountains, and flows into the Danube River, south of the village of Giurgiulesti, 164 km from the mouth of the Danube. The Prut River has a length of about 967 km and the surface of the river basin is 27 540 km² [1].

This river represents an important water source for the municipalities situated within its basin, therefore the monitoring of its resources must be performed at a national level.

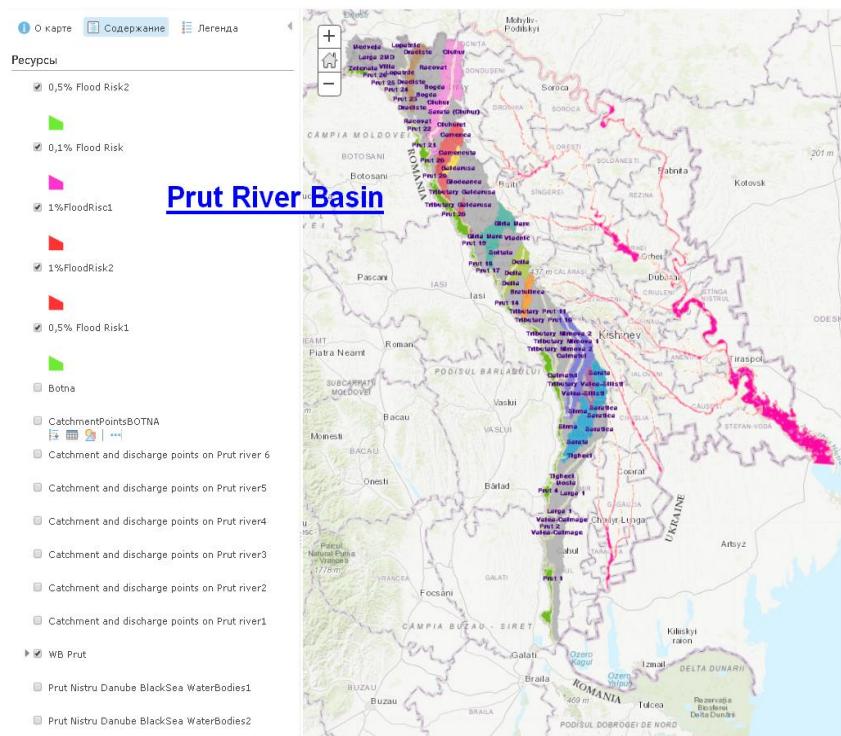


Fig 1. River Sub-Basins in the Prut River Basin from Moldovan side. Posted by the author on- <http://dbga.md/siga.html> [1].

1. Theory and methodology:

The research methodology was based on analyzing the Annual Reports from the regional representatives of the State Ecological Inspectorate. These Reports contained information about the number of Mine wells and Springs and their condition. After that, this information was arranged in tables and at a later stage represented in graphs and maps for a better understanding of the phenomenon. The Vertical axes of all the charts related to Mine wells were set at the Max value of 16 000 in order to see the differences between the Districts.

The evolution in the Mine wells number in the district of Prut for the period 2011-2015

There are a certain number of Water Abstraction points in the region that are mostly inherited from Soviet era and some of them are taken care of and others are left. These points consist of Mine wells, springs and other.

First, were analyzed the mine wells from the annual reports of the State Ecological Inspectorate for the years 2011-2017.

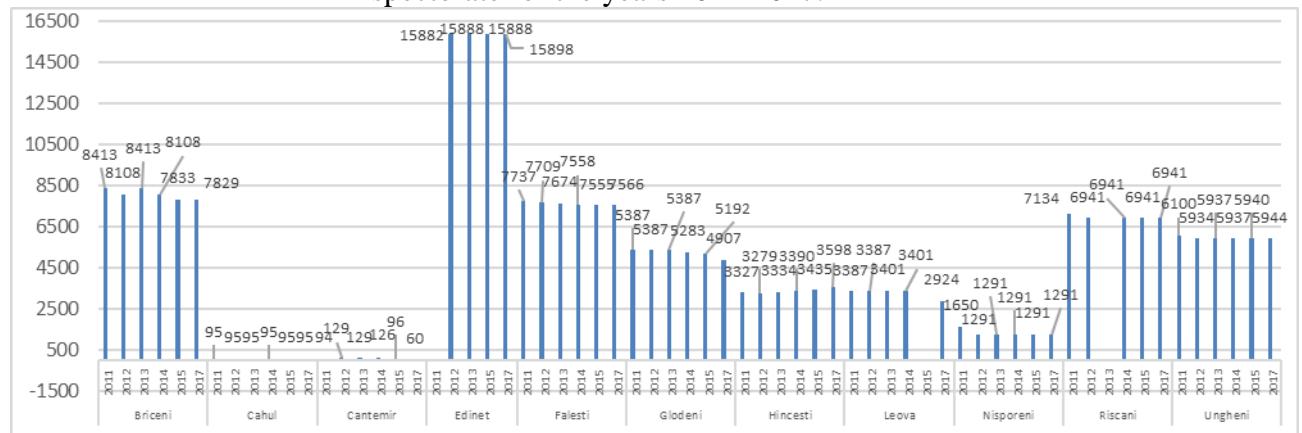


Figure 2. The number of arranged Mine Wells in the Districts situated in the Northern area of the Prut river for the period 2011-2017.

Source- Annual Reports of the State Ecological Inspectorate [5] Elaborated by the author.

By analyzing the obtained tables and the graphs (Figure 2) one can see that the total number of Well Mines has remained the same during the analyzed period over different Districts in the Prut River Basin, but the Arranged Well Mines which are taken care of and are registering a slightly decreasing number, especially in Falesti and Glodeni districts. The highest number of Mine wells are situated in the Northern Districts of Briceni and Edinet. The Southern part of the River Basin has a less number of Mine wells than the Northern part. After analyzing the graphs above, one can deduct that by comparing to the Northern region, the Central and Southern Regions have maintained more or less the same number of Mine wells, in some cases, such as Hincesti and Nisporeni, they have increased the number of wells. But it still much less, in some regions it is 8 times less if comparing between Cahul, Cantemir (with the lowest numbers) with Briceni and Edinet (with the highest numbers of wells).

The spatial distribution of the arranged Mine Wells in the Prut River Basin by Districts

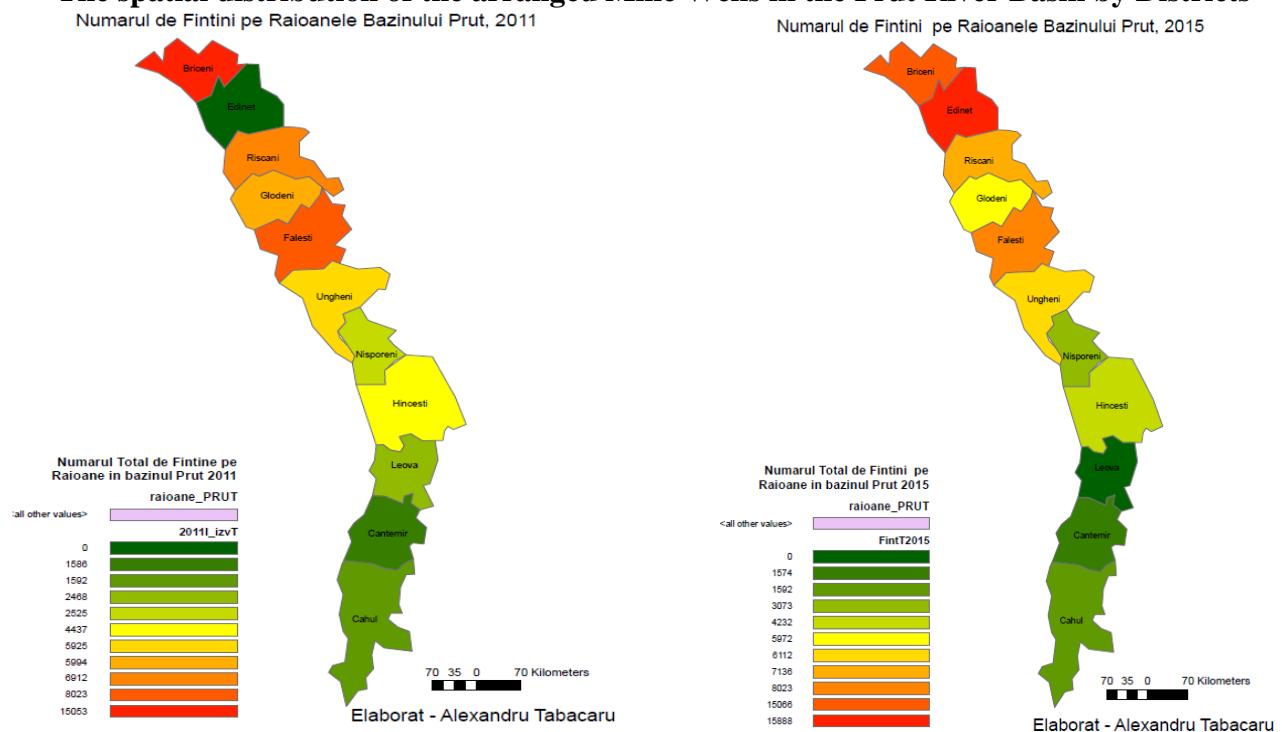


Figure nr.3 The number of Mine wells in the Prut River Basin for 2011 (left) and 2015 (right) years.

Source- Annual Reports of the State Ecological Inspectorate. Elaborated by the author

In the image above (Figure nr.3) are represented the Districts situated in the Prut River Basin of the Republic of Moldova and the values are representing the Numbers of arranged Mine wells for the 2011 year (left side map) and the Mine wells for the year 2015 (right side map). The greenish colors of the District, means that the values are low and the reddish color means high values.

In the Left side map the District of Edinet does not have any data, since the author was not been able to find the Annual Report for this year. That is why it has dark green color representing “zero” value.

The evolution in the arranged spring number in the district of Prut for the period 2011-2017

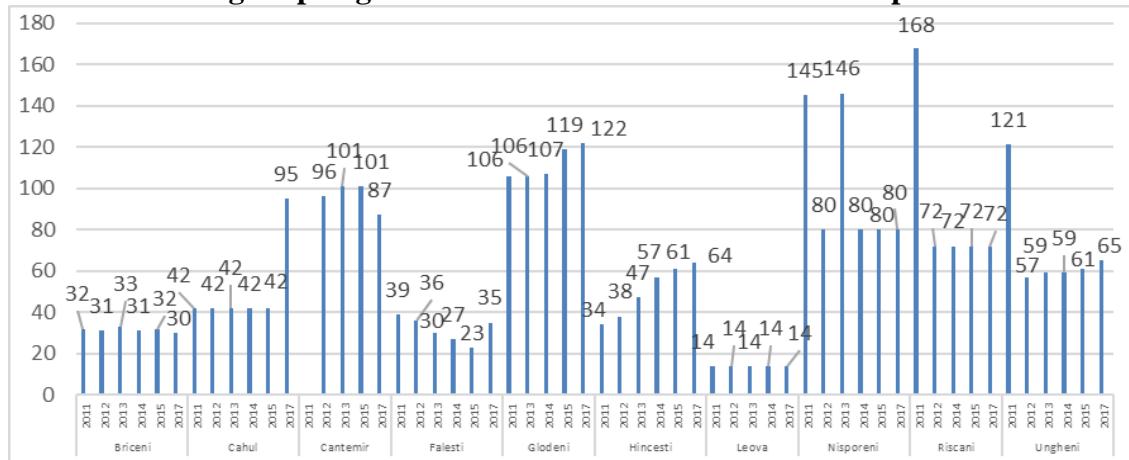


Figure 4. Springs in the Districts situated in the Northern area of the Prut river for the period 2011-2017. Source- Annual Reports of the State Ecological Inspectorate. Elaborated by the author

The spatial distribution of the arranged Springs in the Prut River Basin by Administrative units

In order to represent the Spatial Distribution of the Mine wells and Springs was used the Geographic Information Systems software ArcMAP 10.2 for digitization purposes of the Administrative Units situated in the Prut River Basin and after that were added the respective values corresponding to the year to each District. The Coordinate System was set to WGS-84. After that, the statistical data was typed in according to each district on the map and was achieved the result in the below map.

The maps were created based on the Orthophotos available on www.geoportal.md [3] on which where digitized the boundaries of the Districts.

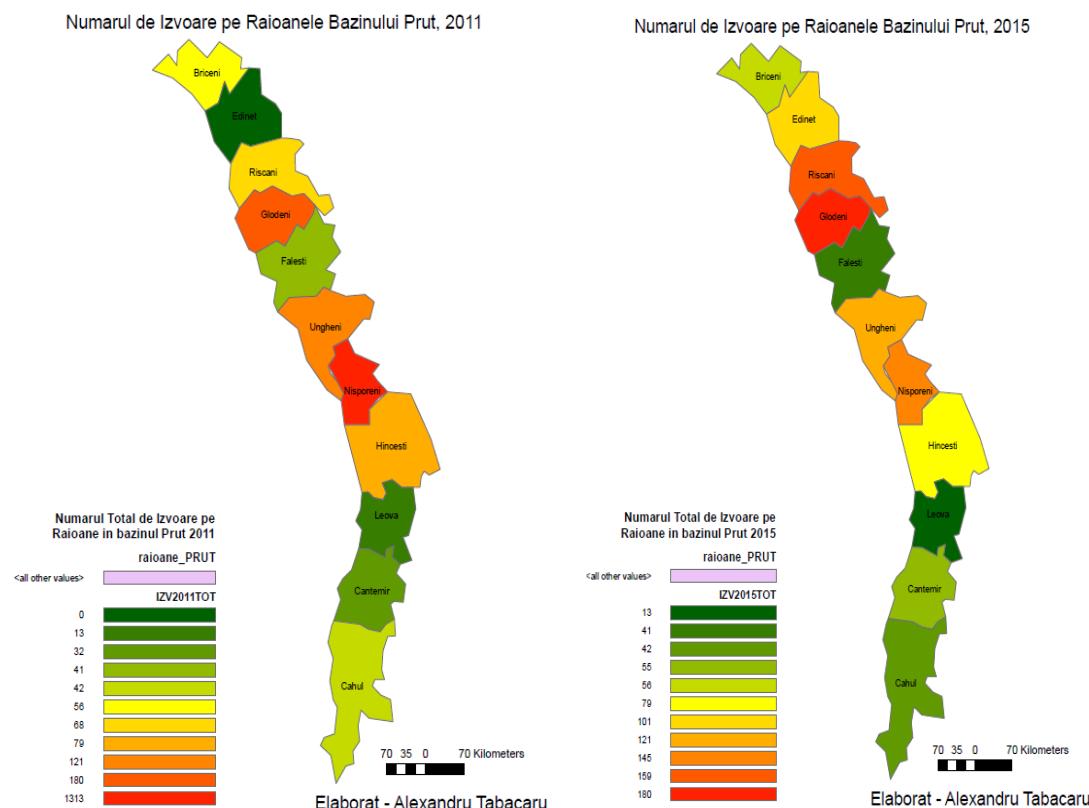


Figure nr.5 The total number of Springs in the Prut River Basin for 2011 (left) and 2015 (right) years.

Elaborated by the author

Similar to the Image nr.1 the data from the Edinet regarding 2011 year was missing and therefore it was left understood by the ArcMap software as zero value and therefore it was assigned the dark green color.

Here (Figure nr.5), the highest values are in the Nisporeni and Glodeni Districts which correspond with the reddish color. On the contrary, the lowest values are assigned to Leova and Cantemir Districts on both analyzed years (2011 and 2015).

It is noted an increase in the number of arranged Springs in the Riscani, Briceni Districts and the decrease in Cahul, Hincesti and Ungheni Districts.

RESULTS AND DISCUSSIONS

The results of this research article are that both the number of mine wells and the number of springs is decreasing which is leading to the conclusion that the water resources, slowly are disappearing both in number and in quality which will have consequences on the water consumption for the population and economy. This fact is urging us the national stakeholders to take actions regarding rationalizing the water resources in the Prut District and in the country as a whole.

Regarding the spatial distribution of the studied elements, it is noted that their number are higher in the Northern part of the Prut river basin (concerning mine wells).

Regarding Springs, the Central part of the Prut river basin is the region where the higher number is situated, especially in Nisporeni and Hincesti districts.

Nevertheless, these are official data which the Ecological Inspectorate is publishing them every year, but there is supposition that their number is higher because not all the abstraction points are registered and they do not report the water usage to the official authorities.

REFERENCES:

- 1.<http://dbga.md/districtprut.html> (consulted on 03-01-2018)
- 2.http://www.apelemoldovei.gov.md/public/files/Plan_Prut_var.II_vb_11.11.15.pdf (consulted on 03-03-2018)
- 3.www.geoportal.md (consulted on 03-03-2018)
- 4.http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm (consulted on 29-03-2018)
- 5.Rapoartele anuale privind calitatea factorilor de mediu și activitatea Agențiilor și Inspectoarelor Ecologice (2011-2017).

CHALLENGES AT THE EU LEVEL IN THE CONTEXT OF THE ENVIRONMENT DEGRADATION

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Abstract. The European Union has been a world leader in the field of the environment for 40 years. Global findings indicate success in reducing environmental pressures. These achievements are all the more remarkable in the European and world context, much changed over the past decades. Without a solid policy agenda, the significant increase in the economy during this period would have led to far more powerful impacts on the health systems and human health. The EU has demonstrated that well-designed, compelling policies work and bring enormous benefits. The EU formulates an attractive future vision for 2050: a low carbon society, a green, circular economy and resilient ecosystems as a foundation for the well-being of citizens. In addition, globalization links Europeans to the rest of the world through a series of systems that allow a two-way flow of people, finances, materials and ideas. Indeed, only the idea of what it means to live well within the limits of the planet is extremely difficult to understand.

Key words: environment, degradation, pollution, strategies, UE

JEL CLASSIFICATION: Q54; 055;

1. INTRODUCTION

The environment is the set of natural conditions and elements of the Earth: air, water, soil and subsoil, all atmospheric layers, all organic and inorganic matter, and living beings, natural systems in interaction, including the elements listed above,

The degradation of the environment is caused both by natural phenomena and due to human activity. If natural factors such as hurricanes, earthquakes, volcanic eruptions, intermittently, at varying intervals of time and short duration, the anthropic factors (due to human action) are manifested continuously and consequently their negative effects are much more severe, threatening even with the occurrence of planetary disasters.

Creation of nature, man acted upon it transforming it into its interests and at the same time becoming the creator of living environment, activity that in the same time determined the development of its intelligence.

Through his ability to discover, invent and create, he has been able to make extensive and rapid, even explosive changes to nature, to turn the environment into his favor and his fellow men, but can also cause incalculable damage when acting abusively, irrationally, without knowing their laws and without whose rigorous observance.

The lack of information has led many people in good faith to persist in actions that cause damage to the environment, not realizing that they themselves had a negative contribution to this. Changes to the environment have often been slow and very difficult to see, although some of them, apparently insignificant, have caused irreversible damage, such as the widespread use of pesticides, mercury pollution, the use of hazardous substances such as asbestos, etc.

All this has led to a new attitude in the public opinion position of governments that have moved to deliberate actions to find and apply the most appropriate measures, according to the level of understanding of the available material and technological phenomena and resources, greater responsibility for environmental protection - the most valuable common asset of mankind.

This paper is the result of an effort to analyze the issue of protecting the environment from an economic perspective - the economic efficiency of this activity - enrolling in the approaches that complement the theory with the practice in the field of environmental economics.

The methodological apparatus used is analyzes, syntheses, comparisons (between sectors of the economy, between countries and regions, etc.), cause-effect analyses, modeling of phenomena, and economic-social and ecological processes.

2. THE ISSUE OF POLLUTION AND THE NEED TO PROTECT THE ENVIRONMENT

The problem of existence can be formulated as follows: is there any set of prices and quantities that ensure the overall balance within the economy and, at the same time, lead to an equilibrium relationship with natural environments? The nature of a balance with natural environments is difficult to formalize.

Any economic system that relies on prices as a means of allocating resources, both intra-temporal and inter-temporal, doesn't pass the test of the equilibrium economy-environment.

This is mainly because changes in the economy necessarily have implications for natural systems in terms of material and energy flows.

With increasing entropy, our ignorance also increases in seeing how dissipated residues behave across the set of interdependent ecosystems that are the physical support for all economies.

The role of updating in intertemporal allocation decisions remains a fully controversial issue in the environmental economy. Ecologists' concerns arise because the upgrade seems to push social costs forward over time. In terms of expanded equilibrium concept, updating threatens the long-term equilibrium by "storing" combinations of problems for future generations: high rates of refreshment tend to encourage exhaustion today rather than tomorrow's non-renewable resources; they allow the adoption of untested technologies that impose costs on future generations (solving the problem of radioactive waste and closure of nuclear power plants, groundwater contamination, global warming, ozone layer destruction, etc.).

3. RESULTS AND DISCUSSIONS

3.1 EXPENDITURE ON ENVIRONMENTAL PROTECTION IN OECD COUNTRIES

More than half of these expenditures were made by Germany and France: Germany's environmental expenditures account for more than 35% of all EU environmental spending and 19% for France. It follows the United Kingdom (12% of the total), Italy (10%) and the Netherlands (8%). These five countries represent almost 85% of total spending.

By reporting the country's environmental expenditure to its own GDP, it is found that the environment is the most important place in Austria, where it accounts for 2.6% of GDP, the Netherlands (2.3%) and Germany (2%). Greece, Italy, Belgium, Ireland and Spain devote less than 1% of their GDP to the environment. France is in the middle with spending on the environment of the order of 1.5% of GDP.

The most significant expenditure is spent on waste management, accounting for 42% of total environmental expenditure. Waste management is the second expenditure item, with 29% of global spending, the third being the fight against air pollution by 19% of the total. These three sectors account for only 90% of global environmental spending.

Soil rehabilitation is often considered as a sub-sector of waste management, partly due to the fact that often waste management companies are those that deplete contaminated soil.

Within the European Union, environmental expenditure is up to 40% of investment costs and up to 60% of operating expenses. The distribution of these two types of expenditure varies according to sectors and countries.

Operating costs predominate largely in the waste management sector, where labor is important. The division between operating and investment costs is more balanced in the areas of air pollution and remediation.

The role of the private and public sectors varies considerably across the country: South countries are characterized by a larger contribution of the public sector to the financing of

environmental expenditures. In Spain, Portugal, Greece and Italy, two-thirds of the expenditure comes from public administrations.

In the countries of Northern Europe and Central Europe, the private sector occupies an increasingly important place. In Austria, for example, the environmental expenditure on businesses accounts for 44% of total spending in 2015, while their contribution was only 30% five years earlier. The United Kingdom is the only country where private sector spending is significantly higher than in the public sector. This is due to privatization programs, especially in the field of sanitation and waste treatment

3.2 ORGANIC PRODUCTS AND GENETICALLY MODIFIED ORGANISMS

Genetically modified foods are produced with similar or improved properties than those obtained by conventional methods, and are presented as fresh foods such as vegetables and fruits or processed, ones such as soy or oil obtained from genetically modified maize.

Genetically modified foods are obtained by interfering with the genetic identity of the organism using recombinant DNA technology.

The use of cutting-edge biotechnology has an impact on science and the environment, bringing about economic, social and ethical implications. Thus, the issue of plant and food production through biotechnology has made numerous groups and organizations publicly criticize this issue, boycott various products, and categorically refusing to market them. The fact is that the production of these foods has become a real weak point for all decision-makers involved: from research to the interest of large companies in controlling the food market, often placing the consumer in the difficulty of choosing the most nutritious foods suitable for his health.

For over 50 years, American agriculture has become more productive due to the widespread use of chemical fertilizers and pesticides, new methods of plant and animal husbandry, and innovative methods of mechanization. The US has the top of the countries where the largest area of genetically modified plants is grown: 30 million hectares. Obviously the price of this success lies in water pollution, soil nutrient depletion and the negative impact on insects and birds.

This type of farming has had a negative impact on rural communities, has placed on the market fruit and vegetables containing pesticide residues and in some cases has created a certain fruit and vegetable consumption culture that has an appealing appearance but does not have any taste.

However, organic farming is one of the reactions to the methods used in modern agriculture. Organic farming protects the environment, eliminating the use of chemical fertilizers and pesticides as much as possible, protecting the soil. The impact of the new methods of organic farming has been felt, so that about four percent of the food produced in the United States is of organic origin. Although organic foods are more expensive than conventional ones, this is happening on the European Union market, because in Romania these issues are not clearly put to the attention of public opinion by competent authorities, not always applying organic methods is safe for protecting the environment and for obtaining according to the marketing standards required by the European market - shape, color, taste.

On the other hand, genetic engineering has the potential to increase productivity per hectare, to protect water resources and biodiversity, but these aspects of the benefits of applying both types of agriculture have raised controversy both in the scientific world and among farmers. However, cultivation of genetically modified plants also has its positive elements because it reduces the use of toxic insecticides, which leads to the protection of water resources and soil erosion. Will plants that are resistant to floods or can grow in poor or poor soils? Some consumers are skeptical about the use of biotechnologies, arguing that this type of crop raises ecological problems, and that food can be toxic or allergic

3.3 . IMPACT OF EUROPEAN CONSUMPTION AND PRODUCTION PATTERNS

Globalization does not just mean that global trends have implications for the society, the economy and the environment in Europe. It also means that consumption and production patterns in a country or region contribute to environmental pressures in other parts of the world.

The ecological consequences of consumption and production in Europe can be understood from two different perspectives. First, a "production" perspective examines, in general, the pressures from resource use, emissions and ecosystem degradation across Europe. Secondly, a "consumption" perspective focuses on the environmental pressures on the resources used or the emissions embedded in the products and services consumed in Europe - both those produced in Europe and imported ones.

A significant part of the environmental pressures generated by EU consumption are felt outside the EU. Depending on the type of pressure, between 24% and 56% of the associated total fingerprint occurs outside Europe (EEA, 2014f). To illustrate this: Of the footprint on land associated with products consumed within the EU, an average of 56% is estimated to lie outside the EU.

The share of environmental footprint of EU demand that is exerted across the EU has increased over the last decade for land, water and materials use as well as emissions to air (see Figure 1). Estimates indicate that the total material and emission requirements caused by the three consumer areas in Europe with the highest environmental pressures - food, mobility and housing (built environment) - did not show significant reductions between 2012 and 2016 (EEA, 2016r).

However, in terms of production, in many economic sectors there has been a reduction in demand for materials and emissions (or a decoupling between growth and emissions). This divergence between production trends and consumption trends is commonplace.

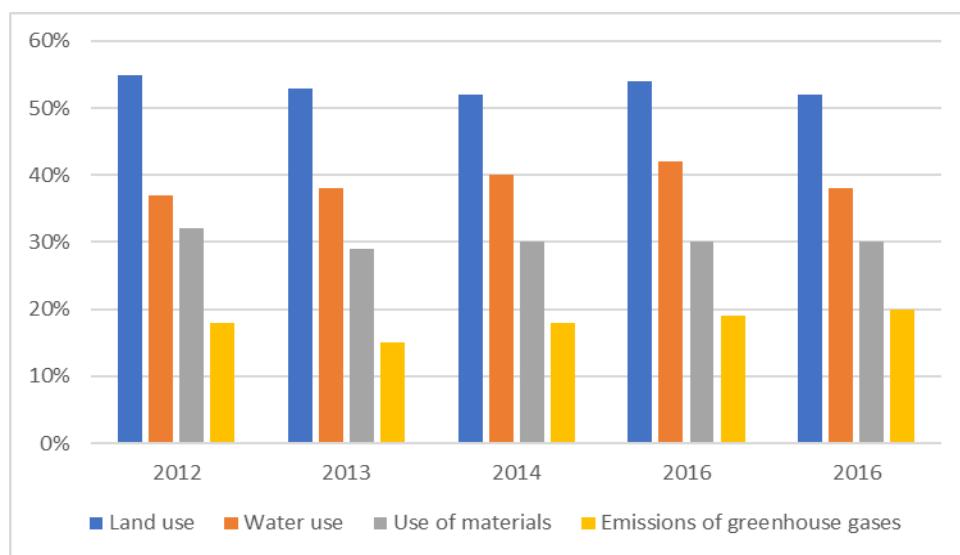


Figure 1- Share of the total environmental footprint exerted across the EU and associated to the final EU-28 demand

Source: Eurostat data

4. CONCLUSIONS

The likelihood that climate change risks can affect the international security is hotly debated by the international community in recent years. The United States, EU and many other countries have commissioned studies to look into the potential impacts of the climate change on their national security. Over many years, the European Union has taken a leadership role at fostering international cooperation in seeking to tackle the climate change threats through its diverse policy tools and initiatives with disparate regions of the world.

The EU is particularly weary of spill-over effects of climate change threats whereby induced-climate migrations from third nations can have incalculable consequences on its

territory. In that regard, it has developed specific policies to address the impacts of climate change in many developing countries and foster greater international cooperation in that respect. By recognizing that the threats of the climate change are multidimensional and no one country alone can address them effectively, the EU and the African Union have adopted joint-policy initiatives to tackle the issues of climate change.

Despite the existing legislation, new laws are needed to be fully in line with new trends in the agricultural sector, especially with the multiple and important consequences stemming from privatization and changes in the ownership structure. Realistic and adequate agricultural policies, based on a fair assessment of the existing situation, are missing. At present, the agricultural production requires specific laws to encourage agricultural activities and also contain constraints (incentives or penalties) to prevent irrational farming practices.

REFERENCES:

1. Camasoiu C., (1994), *Economia si sfidarea naturei*, Editura Economică, Bucuresti
2. Dragos D.C., (2004), *Introducere în politica de mediu a UE*, Editura Accent, Cluj-Napoca
3. Geissen V., Mol H., (2015), *Emerging pollutants in the environment: a challenge for waters resource management*, International Soil and Water Conservation Research, Volume 3, Issue 1, 1 March 2015, Pages 57-65
4. Rojanschi V., Bran F., (2005), *Abordari economice în protecția mediului*, Editura ASE, Bucuresti
5. Rojanschi V., Bran F., (1997), *Economia și protecția mediului: obligații ale agentilor economici*, Tribuna Economică, Bucuresti
6. Soroceanu V., (2000), *Cresterea economică și mediul natural*, Editura Economică, Bucuresti
7. EC. (2009). Regulation No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC. Official Journal of the European Union, L 309, 24.11.2009

METHODS OF GREENING OF POLLUTED SOILS IN ROMANIA

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Abstract. The present paper aims to present the state of the soil in Romania, which with time has become increasingly "diseased". It is known that today humans bring the soil with different substances with which it is contaminated for better satisfaction in terms of the final product. The soil itself is a mix of plant, animal and mineral matter that is formed over a long period of time, this process lasting for even thousands of years. Soil is the main basis for the growth of plant major and is essential for the whole production. By polluting it with different toxic chemical compounds or radioactive materials that ultimately affect plant life, but also animals, and ultimately, human life. At the same time, we want that by human modifications the soil will not be attacked with different chemical compounds, but that we will discuss in the future an ecological culture as a result of the efforts of those who administer the land of our country. The theme of soil was not in the focus of a specific community policy so far. Different aspects of soil protection are found only at national level, but less regional. At present, the case of some legal provisions on waste, chemicals, industrial pollution prevention and protection is identified.

Key words: soil, nature, environment, ecology, chemicals.

JEL CLASSIFICATION: Q57

INTRODUCTION

Our research concerns on soil condition in Romania are of increasing importance, as 2007 was a very dry one and the majority of crops was compromised. It can be said that drought is the main reason for the loss of wheat crops, the total collapse of summer cultures, and here we are referring to corn crops. On the other hand, it was clearly seen that some small areas, such as Baragan's Camp had a production of between 700 and 5100 kg / ha using the same technology as in the rest of the cultivated areas. Having the above conditions, the quality of the soil and its technologies carries the full responsibility for the low level of the various crops.

When questioning soil quality, it is imperative to consider evaluating a minimum of parameters such as:

- Biological activity;
- Physical state;
- Chemical state.

The whole world is surrounded by social and political issues, and especially in our country, where many scandals are disinterested in soil and natural heritage. The calculations of some specialists show that annual averages are 15 per soil / year / ha, at national level of 300 million tons. (Allen, C., & Clouth, S., 2012)

Many of us claim that things are not that serious, or that it is not yet the end of the world, but looking beyond such appearances, such attitude will affect the future generations. It is time to act, as the nature itself reacts quite strongly to the impulses that lead to its recovery. Reconserving as well as rebuilding natural ecosystems together with re-ecologizing agriculture nationwide and world-wide would be a guarantee regarded as a fair relationship between man and the environment. This would lead to a healthier diet. But the robbery in the Romanian agroecosystems shows the opposite, namely a rather aggressive unreporting between the Romanian man and his environment. (Barbier, E. B., 2009).

Because of a lack of education and primitivism that our country demonstrates, political decisions can only be solved through learning and education. Those who destroy the natural resources of the soil in order to enrich themselves in a fairly short time will be shown that their wealth no longer serves anything when they can no longer breathe, when they will not have what foods to taste or no more drinking water. That moment will be too late to do something, and the saddest murder is that innocent persons will suffer and here we refer to people who have positively thought in favor of conserving human and natural resources. (Cogălniceanu, D., 2007).

The main sources of soil pollutants

- Biodegradable waste

Large industrial complexes are discarded annually by tens of tons of solid waste. The main industrial pollutants are made of paper and cellulose, smelters, refineries, thermal and electric power stations, and do not forget that most industrial furnaces produce ash that floats on the ground.

- Household and commercial waste

The main waste that is in the urban area includes commercial and industrial waste. They are usually dug in public places, right on the streets, bus stops, parks, even open areas outside the city. The compounds of this waste result from old newspapers, papers, furniture, cans, tires, etc. These generate many types of bacteria and viruses that enter the soil.

- Biomedical wastes

We refer to hospital waste, where we include those, dressings, infected wounds, and expired medicines. These wastes mix with the soil and lead to its pollution.

- Biodegradable waste

These wastes decompose into the soil. Microorganisms such as fungi or bacteria decompose soil properties into simple compounds. They are used as nutrients by other organisms. The category of biodegradable waste includes broom and vegetable shells, tree and plant leaves, grass, wood and wool.

Solutions for greening the land

Soil salvage is the top priority for us because its presence is decisive for both biodiversity and the regulation of water circulation in ecosystems or nature in general. It is worth mentioning that more than 90% of the planet's biodiversity has its habitat in the soil, and this is why the soil is considered a "live organism". For everyone, it is important to have greater productions. It is known that nitrogen is the main factor in increasing productivity and its quality. Analysis of the evolution of nitrogen available to plants in soil demonstrates that at any time there may be a lack of this component. (Bran, F., Rădulescu, C.V., Ioan, I., & Popa, C., 2011) This work does not mean we have to use this substance at its maximum capacity. Statistics show how nature can self-supply with this substance:

- 15% of the atmosphere by chemical oxidation of atmospheric nitrogen during electrical discharges;
- 25% through industrial chemical targeting;
- 60% by biochemical fixation in the soil interface.

Nature together with the soil has the possibility to mobilize the microorganisms to be synthesized biologically with nitrogen, but the main condition is that there should be good conditions for activating the biological synthesis. Nature is considered to be the best engineer who does not let things pass by it. The soil has different bacteria that fix the nitrogen as necessary to the plants. There are several types of bacteria in the soil that are not known by all agronomists because of the lack of knowledge in microbiology that do their job well enough. Between plants and many bacteria there is a real collaboration, either symbiotic or even association, that fixes nitrogen only to the extent that plants are needed. (Caprotti, F., & Bailey, I. 2014)

What needs to be borne in mind is that a requirement of good agricultural practices used to protect the environment and reduce the water pollution phenomenon obliges each agricultural producer to apply the recommendations regarding agrochemicals and, of course, to know very well the conditions of their application. When rational fertilization is practiced, it is important to keep in mind the type and amounts of nutrients that we need to apply to soil for a particular crop, and the used type of fertilizer must be based on the degree of soil supply and its qualities, as well as the

climate and the pests of agricultural crops and the application times to ensure agricultural crops with unnecessary nutrients. The fact that there are farmers applying large quantities of nitrogen to cereals in autumn or large amounts of urea in winter on frozen soil involves a great deal of waste that harms crops, the environment in general and the beginning of biological fixation in particular. For in autumn there is enough nitrogen, including our soils to support starter nutrition, and winter nitrogen is not used to anyone, plants hibernating in frozen soil or under snow are not nitrogen-consuming. They do not put pressure on nutrition. Over the winter, bacteria, in their turn, do not work. (Alexandru, B. & Alexandru, R. 2001)

As any living system associates between bacteria and slopes are activated at temperatures over 50 degrees Celsius, it is modeled as the amount of nitrogen that is fixed to plant needs and is significantly reduced when plants no longer need nitrogen. From all this, it turns out that man is applying certain amounts of nitrogen to agriculture by chance. Practically, man is the main culprit of soil pollution. Although this has been shown to farmers on several occasions, it seems that very few took this into account, but it comes to situations such as the fact that the state does not help the farmers, but worse by the fact that we have become nitrate pollutants in conditions which plant nutrition itself is insufficient and the production level is the smallest in Europe.

Practically, it is necessary to understand that today, on the verge of major disasters caused by pollution, we can not give up the nitrogen synthesis. However, we ask farmers next two essential conditions for the economic and environmental future of agriculture. (Jacobs, M., 2012).

- To be used primarily naturally at full capacity as a result of Soil Systems;
- Also be administered only if needed and only then when plants ask for it. The rule of accidental application of nitrogen in agricultural crops is both costly and polluting, representing a double pollution.

Methods of greening of soils

The main methods by which the greening of a soil can be improved or even completely treated depends on several factors such as:

- Growing leguminous plants, green fertilizer plants, or deep-rooting plants in a proper cropping would be the first greening method;
- The incorporation of organic substances into the soil, in the form of compost, from the production units, according to the ecological production rules and endorsed by the territorial units;
- Products of several categories coming from animal farms such as dung-goers may be used if they come from livestock units that comply with existing national rules or, in their absence, recognized international practices relating to production organic livestock;
- Soil fertility is enhanced by cultural practices such as crop rotation, green fertilizers, hidden crops, interstellar crops, plant and animal waste that can be recycled, rooted and grounded.
- Another method by which we can come to support the soil is ecological culture, which is more and more common in our country and can thus keep soil as clean as possible from diseases and chemicals usually attacks.

In the specifics of culture technologies, soil work is an important segment, and therefore it is necessary to perform it in the most optimal conditions. Thus, the farmer must have information on some of the peculiarities of the land, the type of soil, the presence of the weed problem, some characteristics of the cultivated species, all of which are analyzed for the development of the working methods, the necessary equipment and the indices main execution. On the sloping terrain, the works will be carried out along the slope to prevent erosion at the moment of impact, with water, and the fertile soil layer. (Dincu, I., Bran M., 1997)

Vegetable remains should also be well squeezed prior to cutting with a special disc harrow for such technological works, so as not to make it difficult to perform the drilling and work done previously. Soil works should be carried out as best as possible in the optimum humidity parameter in order to have a low energy consumption. The maintenance of agricultural equipment at the time of the change in the chain plays a very important role in controlling weeds in the case of organic

farms. Many weeds have adapted upward in the sense of maturing their own seeds with those of plants specific to the crop in question. Even in the best maintained crops there is a certain number of weeds whose seeds are able to provide the perpetuation of the species, provided they are properly disseminated. Therefore, harvesting is the main method being represented as a means of spreading weed seeds, unless agreed measures are taken to collect them or even to properly and thoroughly clean the combines. (Bold, I., Crăciun, A., 1995).

A good example for combating different soil pests is nettle extract, which is also called "bite juice", used as such (diluted) to reduce the amount of chemicals added unconsciously by the human being and, at the same time, has a beneficial effect on the fructification and nutrition of plants in the soil. To get this preparation you need 1 kg of fresh herb and 9 l of water. The "maturing" time of this substance is 12 hours and it is recommended to apply before the flower formation, and this process can be repeated after 3 days. The manure is also another factor that cars in the greening of soils is considered to be a complex fertilizer consisting of a mixture of certain vegetable matter and manure from the treated animals. It contains nitrogen as follows (5 kg / t of trash), phosphorus (2.5 kg/t of trash), potassium (6 kg / trash) and calcium (5 kg / t trash). The quantity and quality of garbage grade depends on a number of factors such as: the age of the animals and the species to which they belong, the amount of the waste from which the garbage is derived, the feedingstuff used in the diet, the type of bedding in the stables, and not the last method and storage period. This type of fertilizer is very beneficial for soil quality and is usually applied in the autumn, which is then incorporated through the field, having a complex effect on the soil, influencing its properties. Therefore, soils containing more clay become more permeable, or even more chalky, and sandy ones become more structured, and the humus content, an important component of fertility, increases. However, the biological activity of microorganisms is considerably improved. (Zahiu L., 1999).

CONCLUSION

In conclusion, we have managed to capture certain aspects that occur daily with nature, more precisely with the soil from which our existence originates, and we have identified a number of aspects that bring it a negativity sometimes difficult to control by human species. The greening of the soil depends to a large extent on the vegetation that covers it, which is very important for monitoring the persistence of pesticides and artificial fertilizers on the lands in question. The economic interest, according to the protection of the environment, requires the stable fixation of chemical fertilizers and pesticides. If we look at what is actually happening, some of these substances are taken by natural factors such as the wind, and transported to other spaces, the remainder decomposing over time following the oxidation of the action of the enzymes perceived by the bacteria in the soil. However, it is very important not to forget that the environment together with the soil is the main factor that keeps us as healthy as possible through the elements that are given to us (food), so try to protect it as much as possible, by channeling our waste in the specially designed spaces, because by the effort of each we will succeed in "rehabilitating" the soil.

REFERENCES:

- 1.Allen, C., & Clouth, S. A Guidebook to the Green Economy. (2012).
- 1.Alexandru, B., & Alexandru, R. Influenta globalizării și regionalizării asupra națiunii. Bucuresti, 2007
- 2.Barbier, E. B., Rethinking the Economic Recovery. 2009.
- 3.Bold, I., Crăciun, A. Exploatația agricolă, organizare, dezvoltare, exploatare, Timișoara, Editura MIRTON, 1995.
- 4.Bran, F., Rădulescu, C.V., Ioan, I., & Popa, C. Simergii globale în direcția protecției mediului. Bucuresti: Editura Universitară, 2011.
- 5.Caprotti, F., & Bailey, I. Making Sense of the Green Economy. Geografiska Annaler: Series B, Human Geography, 96(3), 195–200.
- 6.Cogălniceanu, D. Ecologie și protecția mediului, Ministerul Educației și Cercetării, Proiectul pentru Învățământul Rural. 2007.
- 7.Dincu, I., Bran M. Tehnologia culturilor de camp. București, ASE, 1997.
- 8.Jacobs, M. Green Growth: Economic Theory and Political Discourse. Centre for Climate Change Economics and Policy, Working Paper No. 108. Grantham Research Institute on Climate Change and the Environment, Working Paper No. 92. 2012.
- 9.Zahiu, L., Management Agricol. București, Editura Economică, 1999.

THE ECHO OF "THEFT OF THE BILL" ECHO-UL "FURTULUI MILIARDULUI"

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Abstract

One of the landmarks around which should pivot the political, economic and social dispute in Moldova is the so-called "theft of the bill". Since the money has gone, it has been around four years, when authorities have not provided credible evidence that identifying of the culprits is a major concern, on the contrary. Bad loans of tens of millions of lei and the removal of about one billion euros from the country through a scheme involving 3 commercial banks, which led to a crisis in the country's banking system, the devaluation of the leu and the impoverishment simple citizens. The effects of the shock through which the economy has passed is felt to the present due to the difficult economic situation, the political factor, but also the currency speculation. Even though these elements led to the devaluation of the banking sector by stealing billions of lei, several other actions have somehow facilitated the given events. The lack of coordination, the passivity of some state institutions or the shortcomings of the judiciary are just some of the elements that the Kroll investigation does not cover.

Keywords: financial crisis, financial stability, banking system, vulnerability, theft, economic recovery.

JEL Classification: G01, G21, G28, G38,

1. Introduction

One of the landmarks surrounding the political, economic and social dispute in the Republic of Moldova is the so-called "theft of the billions" (in reality, the sums are much higher.) Since the disappearance of the money, it took about four years, time in which the authorities have not provided credible evidence that identifying guilty is a major concern.

Given that about 12% of GDP disappears from the banking system and three banks whose assets account for about 35% of the assets of the entire banking system are under the supervision of the National Bank of Moldova and two banks are with arrested shares, so the risks to the macroeconomic situation and for the state of the whole country are obvious.

At the same time, it is obvious that the crisis in the banking system is far from being overcome. The Republic of Moldova is confronted with a multitude of economic and geopolitical vulnerabilities that clearly undermine the economic security of the state. A major risk is the increase in country risk, with the possible transformation of state guarantees used to provide emergency loans to the three banks (Banca de Economii S.A., JSCB Banca Sociala and JSCB Unibank). The volume of guarantees is impressive compared to the size of the Moldovan economy (about 9% of GDP and 34% of the state budget revenues). Therefore, the share of government debt in GDP is projected to increase from 32% in 2014 to 48% in 2015 and 51% in 2016. Against the background of the budget deficit, the current account deficit, the low level of official reserve assets and risks for the national currency, rising indebtedness fuel the country's risk. This will generate an essential fiscal shock and will last about 10 years. At the same time, the reduction of foreign exchange reserves in recent months has exhausted the National Bank of Moldova's ability to mitigate any new pressures on the national currency, which feeds the risk of depreciation of the leu and additional inflationary risks, respectively.

The two-day theft can not be discovered in 4 years and buries a whole country.

2. What happened?

According to the IMF, a financial sector can be considered vulnerable to a crisis, when it can not absorb shock (IMF Working Paper, 2000). These shocks can be linked to imbalances in the price and liquidity, asset quality and the macroeconomic environment.

Christensen, Kumar and Zorn (2015) proposed the vulnerability assessment of the financial sector depending on:

- The leverage,
- Credit and liquidity problem,
- Establishing of the risks,
- Transparency.

The banking system in the Republic of Moldova has problems in all chapters. In this context we can say that a weak capitalization of commercial banks will have a negative impact on financial stability. In case of a shock, this will reduce the bank's ability to profitably invest attracted resources. So, to deal with financial market imbalances, the bank must have enough capital to invest profitable it and overcome the crisis. This issue will be reviewed based on the situation in the Republic Moldova. This shock was in 2014.

Things have precipitated over the period 2013-2014. Bad loans of tens of millions of lei and the removal of about one billion euros from the country through a scheme involving the Banca de Economii S.A., JSCB Banca Sociala and JSCB Unibank caused a crisis in the country's banking system, the devaluation of the leu and the impoverishment of ordinary citizens.

The three banks lose 18.4 billion lei in a single day.

It should be noticed that between January and November 2014, the Ilan Shor Group becomes an important debtor of Banca de Economii, earning from this bank credits of 2.3 billion MDL. This was possible due to a bank robbery in 2013, when the offshore Rousseau Alliance bought a non-performing loan portfolio of 1 billion Moldovan lei at nominal value (an unusual fact in banking activity, because, non-performing loans are usually divested with large discounts, between 50 and 90%).

During this time, the total value of loans granted to the Shor group reached 8 billion Moldovan lei, using the cross-guarantee of the three banks. Three Russian banks, Gazprombank, Interprombank and Alefi Bank have created deposits at the three banks, allowing for the increase in their total lending ceiling, a ceiling almost entirely used for loans to the Shor Group.

The Shor Group paid (between 1-24 November 2014) the loans taken from Unibank and the Social Bank, through loans from Banca de Economii, secured by deposits from other banks. Thus, on November 24, 2014, the Shor group was debtor only to Banca de Economii, the amount of loans to it being 13 billion Moldovan lei (granted to four companies owned by Ilan Shor).

On November 26, 2014, the following concurrent facts are taking place:

1. 13 billion of moldovan lei credits are paid in advance to Banca de Economii;
2. Banca de Economii places the money in a deposit with the Social Bank, and based on this deposit, the maximum lending ceiling of this bank increases;
3. A new series of 13.7 billion Moldovan lei loans are issued by the Social Bank to five Moldovan companies that transfer the money to off-shore companies with accounts at Privatbank in Latvia;
4. The loan portfolio is assigned to a British company, Fortuna United LP (the first Kroll report) plus an interest of 4.7 billion lei.

Coincidentally or not, the credit files that contained the entire lending and guarantee documentation between the three banks are loaded into a vehicle of Klassica Force SRL, a vehicle that is stolen and then completely fired, with the flame burning archive. As a matter of fact, in a single day, 18.4 billion Moldovan lei disappeared from the three banks.

The next day, November 27, 2014, the National Bank of Moldova is set up the special administration procedure, the same procedure being applied to Unibank and the Social Bank on November 30, three days later. To put things in context, all these maneuvers were made a few days before the parliamentary elections in the Republic of Moldova held on Sunday, November 30, 2014.

Therefore, it was already known that something was happening at Banca de Economii. Instead of taking prompt action, the governor of the central bank left the parliamentary elections, perhaps at the recommendation of the parties, to prevent their picture.

"The theft of the Century" in 2014, took place under the slogan of a worry about depositors. In fact, about 2.4 million depositors were used as hostages to justify the decision to offer government guarantees, which were later transformed into state debt.

Providing government guarantees made possible the first "emergency lending" of the three banks by the National Bank of Moldova, and in the second stage - the distraction from the National Bank of Moldova's reserves of the foreign currency, which was later removed from the country.

In July and September 2014, with a few months until the first state guarantee was granted, the banking legislation was amended, thereby creating legal premises for emergency lending of commercial banks in difficulty by the National Bank of Moldova, with the government guarantee.

The argument that the guarantee was offered for the protection of depositors is not plausible. Of the total number of accounts held by depositors, which at that time was about 2.4 million, more than 2.3 million accounts, or 96% of the depositors, were less than 6 thousand lei (the amount guaranteed by the Deposit Guarantee Fund in the Banking System).

If we synthesize the actions, we can distinguish between 6 stages:

1. Acquisition of stock packages in the three banks (Banca de Economii S.A., JSCB Banca Sociala and JSCB Unibank), which enabled concerted activation in favor of the Shor group;
2. Taking control by replacing members of management with persons controlled by the Shor Group;
3. Granting credits predominantly to entities affiliated to the Shor Group;
4. Additional attraction of liquid resources from other commercial banks or the public finance system;
5. Money laundering through offshore;
6. The diversion of diverted funds to multiple destinations and for various purposes - the funds stolen from the three banks were not reimbursed but used for other purposes.

Even though these elements led to the devaluation of the banking sector by stealing billions of lei, several other actions have somehow facilitated the given events.

3. The Economic shock

The dubious affairs of the three banks would have gone unnoticed if they did not hit the citizen's pocket easily. From October 22 to February 2014, in less than four months, the dollar rose by 30.3 percent and the euro exchange rate by 16.6 percent. This is the result of the big business through which the Banca de Economii S.A., JSCB Banca Sociala and JSCB Unibank have raised about 17 billion lei, bought this amount of currency and drew about a billion euros from the country, which was a shock to the economy. The insufficient amount of currency has led to its increase. On February 18, already baptized "black Tuesday", one euro has come to cost 30 lei. True, the moldovan leu started to gradually depreciate last year due to the depreciation of ruble and low exports. But the Banca de Economii machines have unbalanced the market. The collapse of the leu exchange rate and the disappearance of lions on the market were caused by a "financial engineering" of the National Bank of Moldova, which tried to save its foreign exchange reserves and thus ended.

The accelerating depreciation of the moldovan leu has created panic in the market and has led citizens to try to buy currency, assuming tomorrow will be more expensive anyway. The goal of the National Bank of Moldova was to gather money from the market to reduce consumption, because in the Republic of Moldova the consumption is based on imports and the payment of imports exerts a great pressure on the leu. Money disappeared from accounts and citizens' pockets, swallowed by the exaggerated foreign exchange rate, so the national currency has returned, with the Moldovan leu appreciating the euro and the dollar. In the financial report for the banking system on 31 January 2015 the system generated a cumulative profit of 132.6 million lei. The main sources of income in

January were: exchange rate differences (646.8 million lei), interest income (406.1 million lei) and income from fees and commissions (93.2 million lei). Interestingly, foreign exchange operations generated the highest incomes for the problem banks: the Banca de Economii (450.8 million lei) and JSCB Banca Sociala (87.6 million lei). It seems that fluctuations in the foreign exchange market have been staged to cover the gaps in these banks.

Although the leu has recovered, the effects of the shock the economy has been felt so far and the national currency is still subject to unpredictable fluctuations, due to the difficult economic situation, the political factor, but also the currency speculation.

4. Identification of people involved in the "Theft of the bill" and recovering of fraudulent money

Companies involved in the embezzlement of money in the banking system through fraudulent credit also had a well-established money-laundering mechanism and did not encounter any impediments from the competent Moldovan authorities.

Even though efforts have been made to protect the banking system in the Republic of Moldova and to make shareholders more transparent, scammers have been able to inject money from the fraudulent credit schemes into the banking system. In other words, it was possible to acquire shares of some banks on the account of the credit facilities not reimbursed to these banks.

The existence of concerted actions by several commercial banks that facilitated and made possible the bank robbery in November 2014. These concerted actions were not countered either by the National Bank of Moldova, the Competition Council, and other competent authorities. Thus, over a number of years, it was possible to organize and implement a fraudulent scheme that included: credit scams, money laundering, concerted mutual lending between three banks, without being observed and countered by the authorities.

At the same time, it is worth noting that the money that was defrauded in the banking system was passed through the "laundries", and then brought without any impediment to the country as "foreign investments". National authorities have shown themselves to be powerless in detecting such "investments". In this context, a separate investigation would be needed to identify how many "foreign investments" of this kind "benefited" the Republic of Moldova in the last 26 years.

Public sector information such as that in the banking system was stolen in 2014, at least 1 billion USD that could be confirmed by the size of the guarantees provided by the Government at that time.

No names at the moment. The public authorities have tendentiously informed that almost one billion lei (about 50 million USD) has been recovered to date. At the same time, the Finance Minister recently said that no money from the fraudulent was recovered. This contradictory information confuses public opinion.

It is noteworthy that the information was not directly related to the financial means recovered from bank fraud, but to the recovery of funds in insolvency and liquidation procedures of the three banks (the sale of assets including headquarters, cars, other assets). At the same time, this information was a cumulative one, which also presented the sums accumulated until the government converted in October 2016 the guarantees issued by the government in 2014 and 2015 as domestic state debt. In fact, the amounts collected by the National Bank of Moldova until October 2016 (780.6 million lei) were also reflected in this "informative" panel, not relevant to the service of the guarantees converted into state debt.

It is also worth noting the disappearance from the Ministry of Finance's website of the real-time information tool for recovering the defrauded means in the three banks. From the information provided by the Ministry of Finance, we can deduce that recoveries from fraudulently extracted funds have not yet begun. Because the investigation of the "theft of the century" has not yet begun.

There is a set of questions that are unanswered at the moment

- why has the law in force against the three banks been not applied as it was at the time when measures were required but insisted on new formulas with the granting of state guarantees?

- who and when did it decide to allocate government-guaranteed emergency loans?
- why were secret government decisions approved with deviations from legal norms and procedures, to the detriment of current legislation on guaranteeing deposits of individuals in commercial banks?
- what were the official actions taken by the Surveillance and Investigation Bodies after the Kroll report was presented to them?
- what are the chances of recovering the funds raised from the Moldovan banking sector after several years of inactivity?

An entire country is waiting for answers and actions, but nobody does it.

5. Where the Republic of Moldova has arrived?

The economic year 2017 was below expectations, with the Gross Domestic Product being in the pessimistic scenario of the forecast at the beginning of the year (3.5% -4.0%). The 6% initial forecast was not materialized due to unfavorable weather conditions this spring that undermined agricultural production due to the growing uncertainty among businessmen that has slowed the recovery of credit, private investment, and industrial activity, and caused the move slow reforms: more than half of the actions planned under the Government and Parliament Reform Roadmap were not achieved. Against this backdrop, economic growth in 2017 was based on a recovery in consumption, which increased mainly due to the increase in remittances after 2 years of decline, as well as on the intensification of public investment with the release of foreign aid earlier this year. Basically, if we exclude the influence of these two factors, the economy would be in recession. Therefore, economic growth in 2017 was not only too slow and below expectations, but also unsustainable, which raises many concerns for 2018.

The population is leaving, the exodus, especially of the young people, looking for another country to offer them an alternative for a better living, is a worrying phenomenon.

Returning is a dream. Returning to the poorest country in Europe, those who left recently or earlier, is a dream. Those who have gone, though difficult, do not want to come back. They want to take their children with them, there in other foreign countries, but "welcoming". There they are looking for survival paths, but the return is postponed.

Migration became the plague that consumes Moldova. If, at the end of the 1980s, the Republic of Moldova had a population of about 4.5 million people in 2016, according to the National Bureau of Statistics, there are just over 3.5 million people living in the country. At the same time, the Republic of Moldova is the country with the highest population decrease rate in the world, and daily 106 people go to other more developed countries.

The Republic of Moldova has already lost a very high demographic potential. More than 600,000 citizens have settled abroad. Labor migration has turned into definitive migration. From a socio-economic point of view, the most important effect is that the country loses the young, well-trained, working population that will contribute to the growth of European economies, but not for the Republic of Moldova's one.

This is the result of political games, solving personal problems, and not the state, by the state authorities, which brought the bill to theft. There are dozens of abandoned villages and real chances to remain without state and nation.

6. Conclusions and recommendations

The vulnerability of the Republic of Moldova's banking system is driven by low transparency, poor internal governance and governance, unsatisfactory internal procedures and rules, and inefficient money-laundering mechanisms. The liquidation of these vulnerabilities must be the primary policy of the National Bank of Moldova for the next 2-3 years.

The rehabilitation of the banking sector, restoring the confidence of citizens and businesses in Moldovan commercial banks can start from opening the market and attracting new foreign

investments of serious foreign banks. At the same time, removing barriers to dialogue with international financial structures would help attract strategic investors in the sector.

In this context, it is crucial and vital that the commitments made by the authorities in the dialogue with the IMF, the European Union and the World Bank are achieved without departing from the established terms. Since authorities have committed themselves to complying with the conditions and preconditions, they must be done. This is an essential element in restoring the foreseeable nature of the macroeconomic and policy framework implemented in the Republic of Moldova.

On the other hand we see that the investigation of bank fraud, especially those admitted in 2014-2015, is deliberately delayed by the authorities. There is an enormous sensitivity, both social and political, on this subject, the initiation of genuine investigations will catalyze a fair and legal process of accountability for all actors involved in these frauds.

At the level of authorities and groups of influence, attempts are being made to give the economy of the Republic of Moldova a specific character to offshore jurisdictions. Legislative initiatives (capital amnesty, tax amnesty, amnesty of persons previously investigated or tried) irrespective of their origin, secrecy of data on economic agents, persons, founders, and secrecy of court rulings - all these are preconditions and guarantees that attract home money dubious in the financial and banking sector, because they are legalized and then used in other local, regional or international "projects". It is imperative that the Republic of Moldova does not take the model of an offshore economy, as it would reduce the chances of building a democratic state, attract investors, develop the national economy and provide opportunities for its citizens genuine entrepreneurial activities.

No motive for optimism. We live in a country without a future, unfortunately...

REFERENCES

1. Christensen, I., Kumar, G., Zom, L. (2015). "Assessing Vulnerabilities in the Canadian Financial System", Bank of Canada, June 2015.
2. Cooper, George. (2008). "The Origin of Financial Crises, Central Banks, Credit Bubbles and the Efficient Market Fallacy", Vintage Books, New York 2008;
3. Elsinger, H., Lehar, A., Summer, M. (2002). "Risk Assessment for Banking Systems," *Working Papers* 79, Oesterreichische Nationalbank (Austrian Central Bank);
4. International Monetary Fund. Monetary and Capital Markets Department (2016). "Republic of Moldova: Financial Sector Assessment Program-Bank Crisis Resolution-Technical Note", International Monetary Fund, Washington, D.C.
5. Johnston, R.B., Chai, J., Schumacher, L. (2000). "Assessing Financial System Vulnerabilities", IMF Working Paper, April 2000.
6. Kottasova, Ivana (7 May 2015). "How to steal \$1 billion in three days".
7. Rosca, Matei (2015-07-01). "Vanishing act: how global auditor failed to spot theft of 15% of Moldova's wealth". The Guardian. ISSN 0261-3077. Retrieved 2016-02-07.
8. Schinasi, Garry J.. (2005). "Preserving Financial Stability", International Monetary Fund, ISBN 1-58906-356-2 ISSN 1020-5098 Published September 2005;
9. The official site of National Bank of Moldova, <http://www.bnm.md>
10. Turner, P., Sobrun, J. (2015) "Bond markets and monetary policy dilemmas for the emerging markets", *Working Papers No 508*;

mHEALTH APPLICATIONS: CURRENT STATE, BARRIERS AND FUTURE POTENTIAL

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Abstract.

This paper discusses the current state and future potential of mobile health applications (mHealth apps). There are currently more than 325,000 mHealth apps available in major mobile applications stores such as Google Play and Apple Store [1]. The top two categories are Wellness/Fitness apps - representing about two thirds of all mobile health apps on the market, followed by Disease and Treatment Management apps [1]. Others categories include Nutrition, Healthcare Management, Self-diagnosis, Education, Alerts and Awareness, or Remote Monitoring. mHealth apps have the potential to support patient self-monitoring and self-care management all over the world. The future development of these applications consists in integrating mHealth apps into the healthcare system and developing artificial intelligence for mobile health solutions.

Key words: *Healthcare system, Mobile device interaction, mHealth apps, Self-regulation, Self-diagnosis, Technology acceptance, mHealth adoption, Qualitative study, Management of patient information.*

JEL CLASSIFICATION : J25

INTRODUCTION

In recent years, the development of mobile devices, especially smartphones, increased capabilities of mobile applications, many of which target healthcare. Recent studies have highlighted that mobile devices can improve the healthcare system and because of their power and efficiency, researchers have successfully applied them in healthcare, particularly in the transmission of real-time data on patient's health condition, providing diagnosis support, reminders and test result notification and assisting patients with chronic diseases [2].

Health app is defined as any “commercially-available health or fitness application with capacity for self-monitoring” [3]. According to Anderson et al., “the increasing aging population will benefit from 21st Century self-care techniques, easing burden on healthcare by enabling self-monitoring at home, office or other locations” [3]. Self-monitoring can be conducted by patients on various levels: self-awareness of symptoms, self-diagnosis, health reports readings and self-maintained electronic databases of measurements. Mobile health solutions are experiencing a notable development over the last few years, and despite of limited regulation in the technology, these devices have a great potential. However, lack of regulatory supervision in the marketplace enables insufficiently tested and ‘buggy’ mobile health applications and devices to be launched [3].

Mobile health solutions have many advantages: they are relatively low-cost, provide information and feedback in real-time, can be combined with traditional solutions, and also, can collect, analyse and relay data back to physicians and researchers. With more than 325,000 mHealth apps already available in major mobile app stores for both patients and healthcare professionals, the mobile healthcare market is expected to increase each year [4]. According to healthcare specialities, “follow-up monitoring and seeking healthcare information are features of mHealth apps expected to have the greatest impact on patient journey over the next years” [5].

CURRENT STATE

Currently over 325,000 health-related apps are available in major app store such as Apple App Store and Google Play, with about 78,000 added the last year, and this number is expected to

increase each year [1]. Research2Guidance found that there are 84,000 health app active publishers and, by now, 5.4 billion dollars have been invested into digital health start-ups [1]. The mHealth market include apps for medical education, disease management, self-diagnosis, general health and fitness, lifestyle management, and are mostly designed for general public [6].

There is limited evidence for the efficacy of mHealth apps for health behaviour change. There have been a few studies based on mHealth apps and most of them focused on disease management (such as diabetes) and health behaviour change (such as weight loss) [7]. According to researchers, interventions employing text messages and alerts increased treatment adherence. There is also some evidence that fitness and wellness apps reduced waist and increased physical activity [7]. Although these researches provide important insight, qualitative studies examining mobile health applications from users' perspective are limited.

mHealth apps Segmentation

Healthcare mobile development involve creation of mobile applications of the following segments [8]:

I. General Healthcare and Fitness:

- Fitness and nutrition
- Health tracking tools
- Managing medical conditions
- Medical compliance
- Wellness (traditional and corporate)

II. Medical Information:

- Reference
- Diagnosis Tools
- Continuing Medical Education
- Alerts and Awareness

III. Remote Monitoring, Collaboration and Consultation:

- Remote monitoring (safety)
- Remote collaboration
- Remote consultation

IV. Healthcare Management:

- Logistical and payment support
- Patient health records

The worldwide market of mHealth apps by service categories in 2017 is shown in Fig. 1. Currently, the top categories of mHealth apps are *Wellness and Fitness Apps* (such as fitness, lifestyle modification, diet, nutrition, etc.), *Chronic Illness Management Apps* (such as hypertension, mental health or diabetes), *Medical Diagnosis Apps* (such as self-diagnosis), *Medication Management Apps* (such as medication reminders and alerts), *Remote Monitoring Apps* such as measurement of critical risk indicators), *Personal Health Record Apps* (such as health records, payments, lab reports, schedule appointments) [9]. Table 1 provides examples of mHealth applications for the most popular categories.

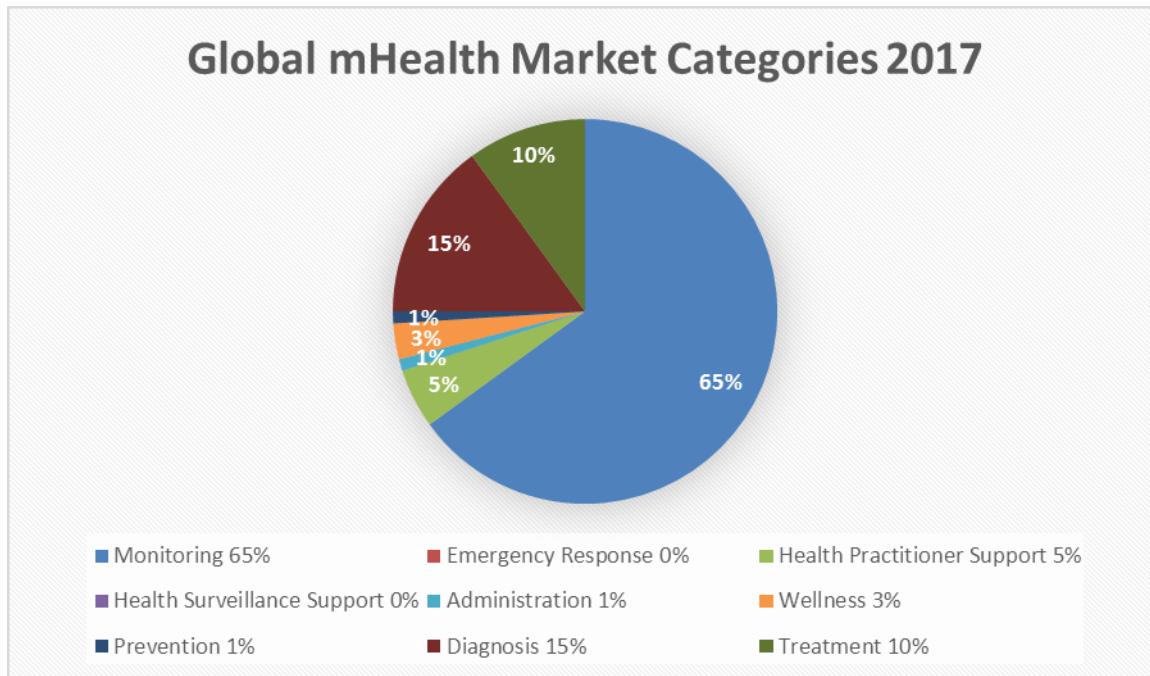


Fig.1. Global mHealth Market Categories 2017

Source: *Investor Information - Wearable Health Solutions, Inc. [9]*

Wellness and Fitness Apps

Wellness and fitness apps, account for nearly two thirds of all mobile health apps on the market [1]. By using smart features to collect data, such as GPS, motion sensors, heart rate monitors, built-in camera, activity and sleep trackers, these apps are able to track active minutes, distance travelled, calories burned, cardio fitness level and monitor health indicators such as heart rate, blood pressure, blood glucose level, stress level, weight, diet and sleep patterns. As one in ten mHealth apps is connected to an external device or sensor, mHealth apps have the capability to provide biofeedback and psychological function data from the patient [1]. In addition, as mobile health apps can provide a general layout of activity and health by offering body composition analysis, stress levels, simplified heart rate zones and resting heart rate trends, patients can see in real time how their actions are impacting their everyday life. In order to keep the user motivated, a significant amount of wellness and fitness apps provide online communities, virtual challenges, push notification and even the option to earn badges. Studies have shown that people who display successful fitness behaviour are capable to influence people who are trying to be fit. This is the “vicarious learning”, which is when people learn to new behaviour by being exposed to others [10].

By monitoring health indicators, providing biofeedback and encouraging physical activity and personalised diet, the wellness and fitness apps show a positive impact on promoting healthy lifestyle to consumers [11].

Studies show mixed results regarding the efficacy of these apps. Researchers revealed an overall advantage of using wellness and fitness management apps, but also called for more high-quality and evidence-based features, rigorous scientific testing and the involvement of healthcare experts in the development process [12].

Chronic Illness Management Apps

Nearly a quarter of consumers apps are now focused on disease and treatment for managing chronic conditions, such as hypertension, diabetes, asthma and mental health diseases [1]. In these cases, healthcare providers prescribe medications, dietary restrictions, and exercises, whose success depends on patient compliance outside of the formal healthcare system. At present, chronic diseases are the major causes of disability and death, representing about 60% of all deaths worldwide [13]. Chronic illness management applications allow healthcare providers to manage more patients

effectively. The technological potential of mHealth apps could help physicians to manage chronic conditions in a collaborative manner with their patients.

In patients with chronic conditions, disease management apps allow them to keep a symptom diary, record their heart rate, blood pressure, blood glucose level, and track the usage of other medications. In addition, these apps provide a variety of functions including medication logs, reminders and integrated communication between patients and healthcare providers.

For example, *Twine App* [14] is a mobile healthcare application developed by Twine Health - a digital health company. Once a patient has been diagnosed with a chronic disease, the physician will set the treatment using the *Twine App*, including medication, exercise, dietary recommendations, and routine patient monitoring of symptoms (such as blood pressure for hypertensive, or blood sugar levels for diabetics). The *Twine App* is in charge to remind the patient when they need to take a particular action (medication administration logs, or reminders to check the blood pressure and blood sugar) or enter a specific piece of data. Through the app, the patient can directly contact healthcare providers to find answers to minor questions related to the treatment protocol or other symptoms. When used as intended, *Twine App* has demonstrated success in helping patients to manage chronic disease by reducing the need for in-person visits with physicians [14].

Medical Diagnosis Apps

There are various medical diagnostics apps that generate awareness among patients due to a trend for consumer use of apps to attempt initial self-diagnosis without a medical visit [6]. Self-diagnostics applications serve as medical reference for patients and physicians and can be particularly helpful in emergency, remote, or resource-limited situations.

Expensive in-person consultations or the prolonged waiting time to be seen by the few specialists working at public hospitals, increased the need to create such products. As Jay Komarneni - founder and chair of Human Dx - says, "we need to find solutions that scale the capacity of existing doctors to serve more patients at the same or cheaper cost" [15].

For example, *Human Dx* [15] is a mobile healthcare application created by Human Diagnosis Project. *Human Dx* is one of the latest examples of growing interest in human and machine learning collaboration to improve healthcare system over the world. By using an artificial intelligence (AI) technique which automatically learns from classifying patterns in data, this app is able to build the best medical knowledge from thousands of physicians across 70 countries. When a physician needs help, they open the *Human Dx* application and type a clinical question, or data diagnosis (e.g., images, test results, medication or other details related to the case) and then request for help from the network of doctors who have joined the community. Over the next days, the *Human Dx*'s artificial intelligence program provides a report which aggregates all the responses. Sanjay Desai - a physician and director of the Osler Medical Training Program at Johns Hopkins University - considers that *Human Dx* application could eventually help the healthcare system, and improve the medical education and training among human physicians [15].

Medication Management Apps

The treatment of chronic illnesses includes long-term medication to combat the disease, but it is estimated that nearly 50% patients do not take their medications as prescribed [16]. Improving patient medication adherence remains a common challenge for physicians and healthcare providers. Medication nonadherence brings enormous costs to the healthcare system and has a damaging effect on patient health, such as increasing morbidity and death. In its report on medication adherence, the World Health Organization quoted that "increasing the effectiveness of adherence interventions may have a far greater impact on the health of the population than any improvement in specific medical treatments" [16]. Now, as more and more people are now smartphone users, mHealth apps can help patients and doctors to prevent the medication non-adherence. A recent study found that mHealth apps improve medication adherence [17].

Medication management applications allow patients to manually enter their medication treatment or to scan the barcode on the prescription bottles, provide education and set reminders or automated alerts.

Remote Monitoring Apps

Remote patient monitoring is associated with reducing length of stay in hospital. To enhance care delivery for patients that need constant surveillance, healthcare providers are increasing their use of integrated remote monitoring solutions. These solutions can let physicians know when patients are in stable or critical conditions without the need for hospital room, and also, provide health data and keep patients informed on their health. In addition, healthcare providers, organisations and hospitals can use remote monitoring solutions to limit costs and services.

With the capability to connect a device or sensor in order to measure critical risk indicators such as glucose, blood pressure, and others, the remote patient monitoring applications can improve the management of chronic diseases. These apps allow patients to instantly connect their data with family and medical professionals.

The remote patient monitoring market increased rapidly over the last few years as the Swedish market research firm Berg Insight observed: “The number of remotely monitored sleep therapy patients grew by 70 percent in 2016, with market growth mainly driven by the vendor ResMed that has made connected healthcare a cornerstone of its strategy” [18]. In addition, Berg Insight states that care delivery platforms and remote monitoring software solutions are the most rapidly developing, predicting that “glucose monitoring, air flow monitoring and connected pharmaceuticals will be the three fastest growing market segments for the next five years” [18].

Personal Health Record Apps

The major healthcare companies developed mobile solutions for patients and providers. These applications offer patients an interface to track and manage their personal health records and physician encounters, and, allow doctors to access all the medical records.

Personal health record apps can help patients to monitor health conditions, track medication, and locate hospital or doctors. Also, through the app, patients can access their lab reports, make payments, view history records, schedule appointments and others. Doctors use these apps to interact with patients and get instant updates on their health concerns.

Table1. Examples of consumer mHealth apps

| CATEGORY | APP | DESCRIPTION AND FEATURES |
|----------------------------|----------------|--|
| WELLNESS AND FITNESS | Fitbit [19]. | The app allows users to track all-day activity. Fitbit also provides personalised advice and motivational features. Connected with an external activity tracker, the app is capable to track and measure: <ul style="list-style-type: none">- heart rate- active minutes- activity type- sleep- calories burned- hydration. |
| CHRONIC ILLNESS MANAGEMENT | Twine App [14] | The Twine App is a chronic management mobile app that allows physicians to communicate and set up a plan for patients with chronic conditions: <ul style="list-style-type: none">- treatment details- appropriate medication- exercise- dietary recommendations- routine monitoring |

| | | |
|-------------------------------|---------------|---|
| MEDICAL DIAGNOSIS | Human Dx [15] | Human Dx is a diagnosis mobile app, that helps difficult medical cases by soliciting advice from physicians worldwide. The app uses artificial intelligence to analyse, compare and filter the advices received from medical specialists and then aggregates all these responses into a single report. |
| MEDICATION MANAGEMENT | MyMeds [20] | MyMeds is a medication management app, helping patients to stay healthy by: <ul style="list-style-type: none">- Sending daily medication and refill reminders- Acting as liaison between healthcare providers and patients- Analysing medication usage history- Finding the best price for prescriptions- Providing information about medications and side effects |
| REMOTE MONITORING | eCAALYX [21] | The eCAALYX app comes with a wearable health sensor that keeps doctors connected to vital information of their patients. Collected data is analysed and reported to the healthcare providers. This remote monitoring system targets older people with multiple chronic diseases. Key features: <ul style="list-style-type: none">- detects anomalies such as tachycardia and signs of respiratory infections- provides alerts- provides geographic location of the user |
| PERSONAL HEALTH RECORD | MTBC PHR [22] | The app offers an interface to track personal health records and physician encounters. Key features: <ul style="list-style-type: none">- Schedule appointments- Medication information- Health summary details- Patient documents and history- Payments- Generate patient - doctor communication |

BARRIERS

Despite the rapid development of mHealth apps, there are still significant barriers to improve the health of population with mobile health solutions, including among others, *Low Awareness of health apps, Lack of Regulatory Supervision, Limited Evidence-Based Literature, Privacy and Security Concerns*.

Low Awareness of health apps

Most users are unaware that mobile health solutions are available. Studies show that patients did not feel the need to use a mobile health app “either because other tools were already available (e.g., notebook, spreadsheet, a website which performed a similar function as the app) and it was not necessary to use a mobile app or they already had formed healthy habits and a tool was no longer needed (e.g., a physically active person would not need an app to motivate them to exercise)” [23].

Lack of Regulatory Supervision

One of the biggest challenges that limit the potentials of mHealth apps is the lack of proper regulation to ensure accuracy, quality, and performance [24]. Health companies and mHealth researchers are trying to create standards and systematic methods to evaluate and certify mHealth apps [1].

According to researchers, “so far, there remains no consensus in terms of the best approach. (...) The app-vetting process is undoubtedly very resource-intense. In a market defined by a low barrier to entry and minimal start-up costs, the reality is that the number of apps will far outpace any centralized evaluation mechanism. One potential solution may be an open, crowd-sourced app rating system with validated sets of standards that enables verified healthcare professionals to examine the clinical content and general consumers to grade the usability” [25].

Limited Evidence-Based Literature

The formal literature for mobile health solutions is limited. The most important evidence of research is conducted in areas as fitness and chronic diseases such as diabetes, cardiovascular health, obesity, multiple sclerosis, and mental health [6]. Until now, mobile health solutions systematic reviews are limited or poor. In addition, research studies show mixed results, and although some of them are demonstrating the efficacy of mHealth apps targeting physical activity and weight loss [25], the evidence base for other types of mHealth apps remains poor.

In order to have a meaningful impact among health providers and patients, the main challenge of researchers remains to develop an evidence-establishing process with randomized controlled trial and fast enough to keep pace with the speed of technology’s evolution.

Privacy and Security Concerns

With the use of mobile health applications, the amount of personal data collected and stored, including patients’ health information, records, history reports and specialists’ reviews, are rapidly increasing. However, because of a lack of standards and regulations, little attention is paid to security and privacy policies in mHealth apps development. Several reports have shown that mHealth developers generally fail to provide security and privacy policies [25].

For a secure evolution in mobile health market, it is important for the mHealth developers to ensure the security and privacy for data storage and transfer, encryption and authentication process.

FUTURE POTENTIAL

Despite of current barriers and limitations of mHealth solutions, the mobile health market is rapidly evolving, with the potential to make a dramatic impact on healthcare system. As such, there is still more research needed to investigate the impact of mobile health solutions on real health outcomes, but the future evolution of these technologies include, among others, *designing international standards and regulations for mHealth solutions, the integration of mHealth solutions into the healthcare system, cloud based solutions for mHealth, promoting prescription of mHealth apps, extending physician capacity with artificial intelligence.*

Design international standards and regulations for mHealth solutions

One of the major limitations for the mobile health market is the lack of international standard and regulations. According to Research2Guidance, “regulation is often named as one of the biggest reasons for the slow development of digital health solutions. Last year’s mHealth Economics survey showed that 18% of digital health stakeholders are held back from developing apps due to uncertain regulatory conditions” [1]. Regulations differ between countries. While some countries have strict and complex regulation, others lack appropriate standards and regulations. In their study, Research2Guidance found that the countries with best market conditions for digital health solutions are USA, UK and Germany, followed by Israel, Canada, Netherlands and Denmark [1].

Changes in regulating digital health are about to happen, as in July 2017, the US Food and Drug Administration announced a new approach to approving mobile health solutions: “instead of approving individual digital products, entire companies could be approved, and digital products released by those pre-selected companies would not have to go through a regulatory process for each of their product releases” [1].

Integrate mHealth solutions into the healthcare system

Mobile health can improve health outcomes especially in a cost-efficient way. Due to budget constraints and a shortage of health specialist, healthcare providers are looking for new ways to improve productivity, with the objective of enabling clinicians to spend more time on patient care. Digital health solutions are beneficial for both healthcare professionals and patients by enabling healthcare professionals to save time and by allowing them to access patient information more efficiently.

For people with chronic diseases, the coordination of medical and community services can significantly improve their health and life. These patients often require costly treatments and care, and therefore many communities are aiming to link the available data between social services and clinical services to provide a more comprehensive care. Aggregated data from different sources may reveal useful information, enabling healthcare providers to develop the healthcare system, to address related issues and to drive new healthcare initiatives and policies.

At the time of writing, connectivity and communication of consumer mHealth apps with electronic health recorder is starting to increase.

Cloud based solutions for mHealth

A personal health record mHealth app is patient-focussed and can store all the medical records of patient across multiple healthcare networks and even countries. These apps act as a platform for personal data, allowing users to share the information with specialists, family and friends. Currently, these apps are still limited and most of stored information is patient-generated (e.g., fitness data), but as the digital health market continue to expand each year, personal health record mHealth will play an important role in the future of health and medicine. Several attempts to integrate essential health records in one place have already been made by IT companies, such as Google (Health) and Microsoft (HealthVault).

Personal health record solutions should allow patients to store in cloud their reported data, health information history, consolations summaries, and laboratory and imaging reports. The patient should be able to access the records all over the world. In addition, all patient information should be kept strictly private and protected at all times.

Promote prescription of mHealth Apps

Due to a very large number of mHealth applications available at present in major mobile apps stores, consumer, without guidance from a healthcare provider, tend to choose from the most popular apps. This is reflected in available download information, as according to Research2Guidance, “the majority of apps are not achieving significant annual download numbers. Most app portfolios only generate a couple of thousand downloads (55% less than 5,000 annual downloads). Nevertheless, a small fraction of 3% successful publishers are reaching high annual download numbers of over 1-million [1]. In addition, healthcare providers also struggle with the amount and variety of mHealth apps available and the limited mechanisms for assessing accuracy, efficacy and appropriateness of mHealth apps. Multiple organisations, such as Happtique, PatientView, HealthTap, Wellocracy and IMS Health’s AppScript are making efforts to provide a mechanism for rating, evaluating, and certifying mHealth apps [26].

More studies substantiating improved health outcomes and cost-savings using mHealth apps are needed to encourage institutional stakeholders and payers to adopt and integrate mobile health solutions into the healthcare system. Some healthcare providers have begun to prescribe mobile

apps as a practice and it is expected that efforts will continue to accelerate in years to come, but further effort is required to reach a maturity level.

Extend physician capacity with artificial intelligence

Internet search engines highlight that topics like Artificial Intelligence, Virtual Reality or Internet of Things are trending topics at the moment [1]. While mobile health solutions are becoming more and more popular with stakeholders within the health industry giving life to mobile health technology, the artificial intelligence has a great impact on healthcare industry. According to Research2Guidance, the technologies with the perceived most disruptive potential in the next 5 years is artificial intelligence and remote monitoring [1].

Although just a small portion of the healthcare field is using AI now, a study conducted by HIMSS Analytics found that of 85 healthcare organization survey respondents, 24.7% plan to leverage AI in the next three to five years, with another 23.5% planning to do so even sooner [27]. According to HIMSS Analytics, AI will have the greatest initial impact in healthcare on areas such as population health, clinical decision support, patient diagnosis and precision medicine [27].

CONCLUSIONS

The uninsured population generally has limited or no access to medical specialists. Those patients often face problems such as paying an expensive in-person consultation or waiting for months to be seen by the few specialists working at public hospitals. Studies have shown that about 25% of expensive specialists' visits and long wait times could be conducted by online consultations between physicians [28] and extending physician capacity with artificial intelligence could close specialist gap around the world.

To the present, the consumer mobile health market is patient-driven and unregulated. To develop the potential of mHealth solutions, multiple researches are conducted in mobile health domain to accumulate clinical studies, establish evidence, expanding data integration into the healthcare system. To achieve great success in mobile health market and self-monitoring healthcare, all the stakeholders including patients, doctors, healthcare specialists and providers, researchers and health organisations must collaborate to overcome the barriers and the needs of this field.

In the future, the patients will play a greater role in healthcare and mobile health solutions will empower them to achieve and maintain a healthy lifestyle. Faiolaa et al. claims in their study that "as the focal point of healthcare shifts to home and community based settings, the ubiquitous nature of mHealth applications will hold considerable promise for supporting patient self-motivating and self-care management" [29].

REFERENCES (Times New Roman, 10 pt, Bold)

14. RESEARCH 2 GUIDANCE. *mHealth App Economics 2017/2018 - Current Status and Future Trends in Mobile Health.* www.research2guidance.com, 2017.
15. GAGNON MP, NGANGUE P, PAYNE-GAGNON J, DESMARTIS M. *m-health adoption by healthcare professionals: a systematic review.* Journal of the American Medical Informatics Association 52, 2015.
16. ANDERSON K, BURFORD O, EMMERTON L. *Mobile Health Apps to Facilitate Self-Care: A Qualitative Study of User Experiences.* Plos One Journal, 2016.
17. BECKER S, MIRON-SHATZ T, SCHUMACHER N, KROCZA J, DIAMANTIDIS C, ALBRECHT U-V. *mHealth 2.0: Experiences, possibilities, and perspectives.* JMIR mHealth uHealth, 2014.
18. RESEARCH 2 GUIDANCE. *mHealth App Developer Economics 2016 – The current status and trends of the mHealth app market.* www.research2guidance.com, 2016.
19. IMS INSTITUTE FOR HEALTHCARE INFORMATICS. *Patient Adoption of mHealth.* IMS Health. <https://www.iqvia.com/>, 2016.
20. McMillana B, Hickeyb E, Patelb M, Mitchella C. *Quality assessment of a sample of mobile app-based health behavior change interventions using a tool based on the National Institute of Health and Care Excellence behavior change guidance.* Patient Education and Counseling 99, 2016.
21. RESEARCH 2 GUIDANCE. *Mobile Health Market Report 2013/2017 – The Commercialization of mHealth Applications.* www.research2guidance.com, 2013.
22. *Investor Information.* Wearable Health Solutions, Inc. <http://www.wearablehealthsolutions.com/investor-information/>. Accessed 12 May 2018.

23. *How Fitness Apps Are Impacting Our Exercise Habits*. <https://www.nwpc.com/fitness-apps-impacting-exercise-habits/>. Accessed 12 May 2018.
24. SAFRAN NAIMARK J, MADAR Z, SHAHAR DR. *The Impact of a Web-based App (eBalance) in promoting healthy lifestyles: Randomized controlled trial*. J Med Internet Res 2015.
25. RIVERA J, MCPHERSON A, HAMILTON J, ET AL. *Mobile Apps for weight management: A scoping review*. JMIR MHealth UHealth 2016.
26. MEETOO D. *Chronic diseases: the silent global epidemic*. British journal of nursing, 2008.
27. *Why Apps for Managing Chronic Disease Haven't Been Widely Used, and How to Fix It*. <https://fbr.org/2018/04/why-apps-for-managing-chronic-disease-havent-been-widely-used-and-how-to-fix-it/>. Accessed 12 May 2018.
28. *Can a Crowdsourced AI Medical Diagnosis App Outperform Your Doctor?* <https://www.scientificamerican.com/article/can-a-crowdsourced-ai-medical-diagnosis-app-outperform-your-doctor/>. Accessed 12 May 2018.
29. MARIE T. BROWN, MD AND JENNIFER K. BUSSELL, MD. *Medication Adherence: WHO Cares?* Mayo Clin Proc, 2011.
30. *The Top Medication Reminder Apps for Patients*. <http://www.pharmacytimes.com/contributor/christina-tarantola/2017/12/the-top-medication-reminder-apps-for-patients/>. Accessed 12 May 2018.
31. *Remote patient monitoring market grew by 44 percent in 2016, report says*. <http://www.mobihealthnews.com/content/remote-patient-monitoring-market-grew-44-percent-2016-report-says/>. Accessed 11 May 2018.
32. *FitBit*. <https://www.fitbit.com/charge2/>. Accessed 11 May 2018.
33. *The Top 5 Medication Management Apps*. <https://www.caringvillage.com/2018/02/09/the-top-five-medication-management-apps/>. Accessed 11 May 2018.
34. BOULOS M, WHEELER S, TAVARESC, JONES R. *How smartphones are changing the face of mobile and participatory healthcare: an overview, with example from eCAALYX*. BioMedical Engineering OnLine, 2011.
35. *MTBC*. <http://www.mtbc.com/products-services/phr-apps/>. Accessed 11 May 2018.
36. PENG W, KANTHAWALA S, YUAN S, HUSSAIN S. *A qualitative study of user perceptions of mobile health apps*. BMC Public Health, 2016.
37. COUTINHO F, BOSISIO ME, BROWN E, ET AL. *Effectiveness of iPad apps on visual-motor skills among children with special needs between*. Disabil Rehabil Assist Technol, 2017.
38. KAO CK, LIEBOVITZ DM. *Consumer Mobile Health Apps: Current State, Barriers, and Future Directions*. Clinical Informatics in Psychiatry, 2017.
39. IMS INSTITUTE FOR HEALTHCARE INFORMATICS. *Patient Adoption of mHealth. Use, Evidence and Remaining Barriers to Mainstream Acceptance*. <https://www.iqvia.com/>, 2015.
40. RADICK LE. *Artificial Intelligence in Healthcare: The Current, Compelling Wave of Interest*. Healthcare Executive, 2017.
41. HORNER K, WAGNER E, TUFANO J. *Electronic Consultations Between Primary and Specialty Care Clinicians: Early Insights*. Commonwealth Fund pub., 2011.
42. Faiolaa A, Holdenb RJ. *Consumer Health Informatics: Empowering Healthy-Living-Seekers Through mHealth*. Progress in cardiovascular diseases, 2017.

SECȚIUNEA II: **Managementul și marketingul în economia contemporană**

THE ROLE OF IDENTITY IN THE FORMATION OF IMAGE

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Abstract. *The image that a company can perpetrate on the market can be a strong differentiating point if the company is able to shape and mold the message that is being sent to its target customers. Since the image of a company is derived from its DNA, the core element of a company resides in the concept of identity. Through proper identity management, a company can maintain a strong image in the mind of consumers.*

Key words: *identity, image, positioning, competitive advantage, brand, communication, differentiation.*

JEL CLASSIFICATION: M310

INTRODUCTION.

In the context of globalization, where the economic activity of a company is strongly influenced by local as well as international players, a company must compete on all fronts that have the potential of giving it a sustainable competitive advantage. Thus, the image that a company is creating, shaping and molding and the way it's being communicated to the target consumer, become crucial elements. A company that can't make its presence known on the market, isn't by any means benefiting from a distinctive positioning in the mind of the consumer. As a result, the company is incapable of obtaining and keeping a competitive advantage which can serve as an element of differentiation. Besides the fact that a company must make a conscious effort in the process of optimizing costs and efficiencies, it also must compete with other companies that more or less, are coming with similar offerings on the market. More than ever before, today's consumer is faced with a tremendous variety of offers due to a strong competitive environment where most strive to offer superior value. Faced with so many options, the consumer is overwhelmed by the many variables that he/she has to take into account. This phenomenon has been labeled by Schwartz (2004) as "The Paradox of Choice, or when more is less". When products and services are practically the same across the board in terms of availability, performance, and price, the image of a company and of the product itself can play a crucial role in the choice set of the consumer. All consumers have needs and wants. The wants are shaped by the cultural factors in which the consumer grew, and, in this context, all consumers seek benefits that will be able to offer some sort of functional, symbolic or expressive benefits to satisfy them. The biggest challenge of a marketer today is not in being able to create successful marketing programs that can increase ROMI but in figuring out and knowing what the needs and wants of the consumers are in the first place. We might argue that the more choice, the better it is for the consumer to be satisfied but this approach is not viable for most of companies due to increases in complexity.

The scope of research of this article is to analyze the role that identity plays in the formation of a company's image and how can a company with a strong identity develop a favorable image on the market. The research objectives are the following:

- To show the importance of a company's identity and how it influences the communicated image;
- To emphasize 4 types of possible identities and how can a company make use of them;
- To point out the role that identity plays in image formation;

- To describe the process of image formation starting with the identity of a company;
- To present the factors that influence the perceived image of a company;
- To offer recommendations for companies in terms of their perceived image.

LITERATURE REVIEW

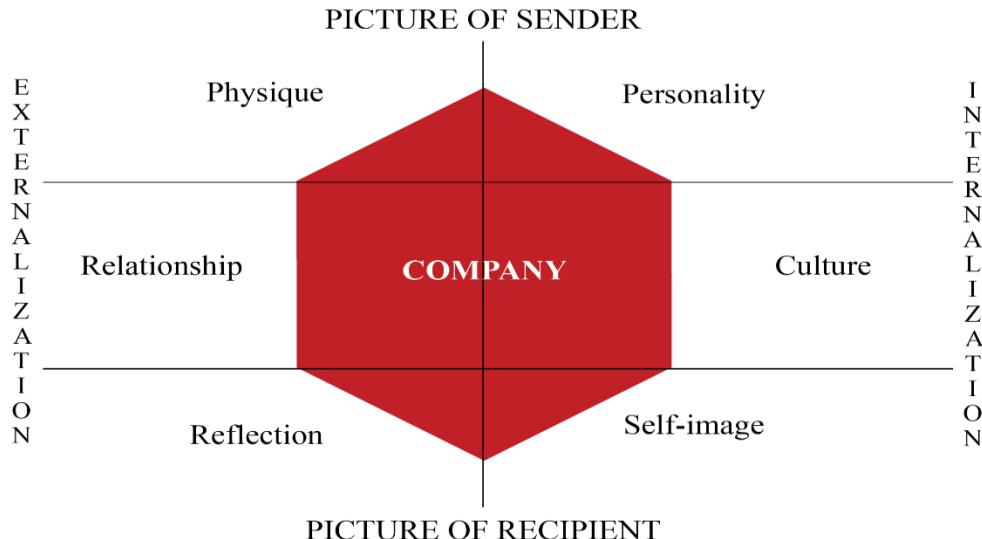
Identity concept. On the subject of corporate identity many scholars have transposed the concept of human identity into the organizational context. Seen from this perspective, a company has a character, personality, individuality, essence and certain behavior patterns. The identity is the means by which a company presents, positions and differentiates itself at a visual, verbal, business and product level. Melewar (2003) offers a holistic and multifunctional taxonomy in which he defines the identity of company through the elements which give it uniqueness. These elements incorporate communication, design, behavior, structure and company strategy. Such a communication takes place when the top management of an organization orchestrate specific attempts aimed at influencing the public's impression. Also, the image of an organization is influenced by the daily interactions which take place between customers and employees. A competitive advantage is obtained from a set of available resources to the company that offer it superior performance in the long run. Research in the field of image and identity points out the fact that there is a positive correlation between a good image and superior performance in business. Simones (2005) has identified through the help of variables such as image and reputation that they reduce risk and contribute to the increase in market share. Also, strong ties have been identified between the performance and the reputation of a company along history. Thus, an effective management of identity offers companies the possibility to obtain competitive advantages. Another benefit which can be derived from identity management is that it creates a higher support system among employees. It serves as an integrative force which make it easier for employees to adapt to the organizational culture. From Balmer and Greyser's (1999) point of view, identity shouldn't be perceived as a phenomenon which is monolithic, but something comprised from other types of identity. From their perspective, a company can have a more than one identity and more than two identities can coexist as long as they are properly managed. There are 4 types of identity:

- *Actual identity* which reflects the realities of a company starting with its leadership style and ending with its performance on the market;
- *Communicated identity* is molded by company communications and other forms of communication which are controlled in a lesser degree by the company (word-of-mouth);
- *Ideal identity* which reflects the optimal positioning of the company and it can be changed/shaped in accordance to the relationship between the company and the environment in which the company is working;
- *Desired identity* is what top management sees as the vision for the company.

These types of identities arise from internal as well as external sources as well as from the response to the values and culture of a company. The ideal identity of a company should be the objective of all communications. A problem which can arise here is that due to a misalignment between all types of identities, companies can have identity problems.

Kapferer (2008) describes the elements that confer an identity to a company by the means of a hexagonal shape (fig. 1). According to Kapferer, identity expresses all the tangible and intangible characteristics of a company, all that it stands for and without which, the company will be something different.

The *physique* element represents the current or emerging characteristics which define the company and all its elements. *Personality* by its definition communicates and defines the company's character step by step. The way by which the company is communicating about its products and services show the personality. *Culture* represents the set of values that inspire the employees and from which the products and services the company is making are derived. *Relationship* is the way in which the consumer perceives any interaction with the company especially when we refer to service companies. *Reflection* is the way by which the consumer wants



to be perceived after he interacted with the company. *Self-image* refers to how consumers see themselves after they interacted with the company.

Fig. 1. Kapferer's identity prism

Source: KAPFERER, J. *The New Strategic Brand Management*. Philadelphia: Kogan Page, 2008. 560 p.

Image and Identity. The image of a company is derived from its DNA which is created by the perception of identity being projected with the purpose of influencing the buying intention, the willingness to invest in the company or to be an employee of the company. One of the biggest challenges contemporary enterprises are faced with today come from the overexposure of a company to its public. Today, most of the barriers which used to exist between the internal and external side of the company have been eliminated. With the increase of transparency among organizations by means of social media a company has to eliminate all the potential discrepancies that can exist between these two facades of an organization. Nowadays, employees interact at a much deeper level with suppliers, consumers and other shareholders and so a company needs to make sure that the image it reflects, goes hand in hand with its projected identity. In marketing literature, the term of identity is approached from two perspectives. The first perspective refers to the organizational identity which mostly covers aspects such as how its members are perceiving, feeling and thinking about the organization. It's considered to be a collective, common understanding of values and distinctive characteristics that an organization possesses. The second perspective refers to the corporate identity which differs from the organizational perspective which is conceptualized more like a leadership function and is concentrated on what is visible. Even though both concepts are referring to what an organization represents, the strong ties between vision and strategy bring into attention the primordial role of the executive team in the development and formation of corporate identity. The marketing approach specifies the way the management reflects the identity towards its public by means of products, communications, behaviors, etc. while the organizational literature is more concentrated on the relationships that are between employees and the organization. The way in which a company communicates its corporate identity is by the top management and the identity is being interpreted and applied by the organizational members through cultural models, experiences and social influences with the external environment. We can conclude that the organizational identity is extracted from the continuous interactions between the members of the organization under the influence of top management. A company can build and consolidate a sustainable competitive advantage through an efficient management of its identity. By these means, a company manifests certain prominent characteristics towards its shareholders, thus building a strong element of differentiation. Developing, maintaining and improving the value

delivery process which has at its base a strong, distinct, and unique identity, a company can reach its strategic objectives and obtain a sustainable competitive advantage while doing so. Corporate identity is transmitted to all interested parties which in turn develop and form certain images which serve as a base for reputation. In terms of shareholders, this includes all the internal members of the organization as well as consumers, investors, financial institutions, suppliers and other governmental and non-governmental organizations. By extending the marketing concept over identity, we can say that managers responsible for corporate identity have to take into account all shareholders in the process of value delivery. The benefits of furtherly transmitting the identity of a company toward its employees comes with the following benefits:

1. Through a strong corporate identity, a company motivates, recruits and retains high-quality employees;
2. Employees get extrinsic superior value by means of competitive compensation plans and intrinsic value by means of job satisfaction;
3. Through programs of corporate identity management, a company develops a positive reputation on the labor market.

A company with a good reputation has in itself a key-differentiating element which allows it to access better qualified employees, more advanced abilities and have all the necessary conditions for creating and maintaining competitive advantages which lead to increased profits. Kennedy (1997) brings empirical evidence in showing the importance that employees play in forming and transmitting the company's image because "the images held by shareholders are a function and a reflection of images held by employees". Developing a positive image among employees translates into a positive image reflected by employees towards various shareholders. Few marketing scholars pay much attention to internal organizational aspects when referring to the image of a company. In contrast to this, the organizational scholars is exclusively concentrating on the internal elements of an organization. Dutton and Dukerich (1991) define image as "the means by which the members of an organization think that they are being perceived by others". The organizational literature differs from the marketing literature because the last mostly emphasizes the various external images that shareholders are having towards a company. From the marketing perspective, the company's image represents a construct developed from the impressions of a public, made to correspond to a certain audience. This automatically implies that the image of a company can be intentionally manipulated by the management team in order to be better suited for the outside public. On the same note, Alveson (1990) has brought a more complex definition which encompasses both the organizational and the marketing perspective. According to him, "the image of a company represents a living, holistic impression that an individual has, which has resulted from offering meaning to all messages and projections of the company". At a conceptual level, corporate image is analogous to brand image. Both terms involve the consumer perspective and represent a general evaluation in terms of beliefs, states and feelings. Studied from a consumer's psychological and behavioral perspective, the image represents an informational processing but once combined with corporate identity, critical differences can be distinguished. Corporate identity usually is studied from a managements' perspective where the main goal is to transmit the way in which the company wishes to be perceived by the public. On the other side of the spectrum, corporate image represents the final result in which the public has processed and assimilated the information about the company. The key difference between these two concepts relies in the origins of each one. Corporate identity is more about the transmitter because the company itself chooses how to identify itself. Image on the other side is the created result in the mind of the public after the latter processes the messages communicated by the company.

The concept of image. The Romanian expiatory Dictionary defines the term image as a "sensory reflection of an object in the human mind in terms of sensations, perceptions or representations; a visual or auditory representation; an object which is perceived through senses". Starting with this definition, we can say that in the context of an enterprise, the term image refers to the overall image that a company has created in the mind of the general public, of competitors,

consumers and other shareholders. The image represents the sum of all activities that are tightly related with the culture and the identity of the company, elements which are transmitted through various sources of communication. Kotler (2012) defines image as “a set of opinions, thoughts or impressions that a person creates regarding a company or a product”. Upon a synthesis of all the “messages” sent by a company, the consumer assigns meaning to them and thus, creates an overall image in his mind and refers to whenever he/she is faced with it.

The term of image, referring to companies, was used for first time in 1953 by Newman who compared the personality of a human being with the image of a company. Since then, the aspects of image have developed alongside other emerging sciences, especially in the field of organizational communication, management and marketing. Once the body of knowledge has expanded, Keller (2012) conceptualized the term of image as “the result of interactions among all experiences, impressions, convictions, states and know-how that human beings have towards a company”. Even though the image is interdependent with the reputation of a company, image is very much dependent on the convictions, states, impressions and other variables that arise from the information delivered by the company, the attitude of its employees and the philosophy behind the organization. Thus, the image of a company represents the foundation on the basis of which the personality of a company is being created by the means of preferences, positive or negative attitudes that a company communicates. Kapferer (2008) makes a link between the identity of a company and it's image arguing that the image the result of a company's identity (fig. 2). Referring to the identity prism mentioned earlier, the identity element is on the sender's side where the purpose is to send the meaning the company has towards its consumers and the image is the result and the interpretation of the identity.

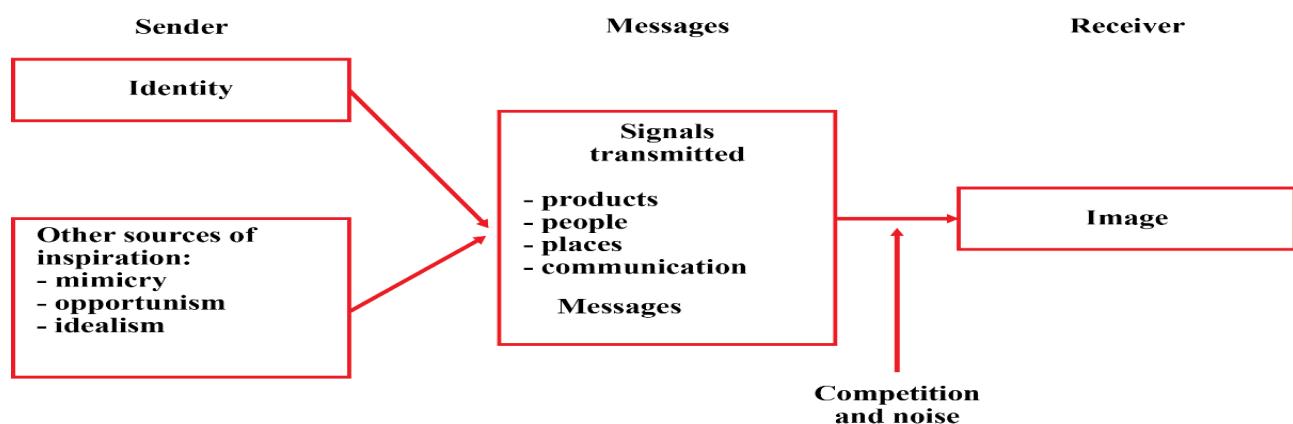


Fig. 2. Identity and Image

Source: KAPFERER, J. *The New Strategic Brand Management*. Philadelphia: Kogan Page, 2008. 560 p.

Factors of influence on a company's image. When competition is constantly increasing on the market, tangible assets that a company has at its disposal are becoming less and less able to lead to a competitive advantage. Today, natural, financial and infrastructure resources no longer determine competitiveness but aspects such as image, branding, human resources, culture and values make way and determine competitive advantages. Some of the main factors that influence the perceived image of a company are the following:

- The power of the informed consumer. More than ever before, consumers understand the marketing principles and have deep knowledge in regards to how a company is operating. Consumers are over-saturated by information and there are many sources from which they can inform themselves. Due to a large amount of informational sources, it is becoming harder and harder for marketers to convince/persuade the consumer through traditional communication channels.

- Brand extensions. Another important aspect which changes the rules is the proliferation of brand extensions among companies. A brand ends up being identified with many other products

which might even belong to different categories, without any similarities between them. Due to brand extensions, distribution channels are over-saturated and there is a continuous fight for shelf space.

- Transformation of media channels. The previously famous media channels are getting eroded and they make way for alternative solutions. Non-traditional media channels are becoming more popular with the highest increase of market share in social media. Marketing budgets are becoming tighter and marketers invest resources in non-traditional forms of communications such as social media, blogs, in-store promotions, etc.

- Increase in competition. One of the main reasons why marketers end up offering price discounts, rebates and promotions is due to increased competition. On the demand site, the consumption of products and services has plateaued, reaching the maturity phase or even a slight decline. Marketers can increase sales only by capturing market share from competitors. On the supply side, competition is increasing due to factors such as:

- o Globalization – even though many companies have embraced globalization as a method of penetrating new markets, this phenomenon has led to an increased number of competitors on the existing markets, threatening the current income streams;

- o Cheap competitors – generic products, private labels and leader product imitations are becoming a reality on the global market. Due to the over-increasing power of retailers, the power has shifted into their hands. They have the power to dictate what happens in the point of purchase and thus leverage on price. These players introduce and promote their own, private labels and are looking for a much bigger share from the promotion of other products;

- o Brand extensions – many companies have taken their existing brands and used them to launch new products which often are from different product categories.

- o Increased responsibility. Marketers often are responsible for delivering on the short-term objectives of company due to the pressure coming from the financial markets and top management. Companies are being valued based on their continuous stream of income which is an indicator of a company's well-being and so marketers are faced with the dilemma of making decisions with short-term benefits but with bigger costs on the long run.

MATERIALS AND METHODS

This paper is based on a review of literature from authors such as Kapferer, Kotler, Simones, Melewar, Dukerich and others, that discusses the constructs of both identity and image and then points out discrepancies that exist between the concept of identity and image and shows the importance of the identity element in communicating a desirable image.

RESULTS AND DISCUSSIONS

In a context of fierce competition at a local and international level, a company that benefits from a strong positioning on the market is one that has a strong identity which communicates in a favorable image. The identity of the company reflects its character, personality, individuality and essence. Referring to the term of identity, it is approached from two perspectives: the first one refers to the organizational identity which touches upon topics such as how the members of the organization are perceiving, feeling or thinking about the organization. The second perspective refers more to the leadership function of the organization and is focuses much more on the elements that are visible. The top-bottom communication within the organization of its identity is reflected through cultural models, experiences and social influences with the external environment. Thus, the organizational identity is extracted from the interaction between the members of the organization, influenced by the top management. By communicating and transmitting the identity, a company is able to motivate, recruit and retain higher quality employees and these employees get superior value by means of job satisfaction. There are 4 types of identity: actual, communicated, ideal and desired and a company can have more than one identity as long as it can properly manage it. Image represents the sum of all activities tightly related to the identity of the company and it can be considered the reflection of identity from the consumer's point of view. Since the article attempts to point out the basic constructs

of identity and image, further discussion on this topic might imply the following: is the concept of identity an essential element in the process of developing marketing plans, products and strategic directions for the future? How can companies create and identity and how can they communicate it? Is identity a source of segmentation, targeting, and positioning? And last but not least, is authenticity important in a context of disruptive innovations and constant changes?

CONCLUSIONS AND RECOMMENDATIONS

In today's competitive environment, the success of a company depends significantly on the chosen identity that a company wants to associate itself with and more specifically, on the way in which the company uses this identity in developing an image that reflects authenticity. The process of a company's image development and the attempt to present it to consumers by means of identity, increases its positioning on the market, amid a strong competitive environment. An important aspect which influences the image of the company are the distribution channels through which consumers interact with the company. The members of the distribution channels are a critical element in transmitting a desired identity which translates into a positive perceived image. A strong image can serve as a guarantee or promise of high quality. There is a strong relationship between identity and image and by analyzing the congruence between these two elements, a company can come up with a marketing strategy that can have a higher return on investment. The marketing strategy should ensure the corresponding synchronization between identity and image. The result of this process is a consistent image on the market which is a crucial element for success. Identity communication starts from inside out where the main objective is for the management team and employees to have a common vision on the company's identity. Once accomplished on the internal level, the desired identity should be shared with all channel members.

REFERENCES:

- 1.ALVESSON, M. Cultural perspectives on Organizations. Cambridge: Cambridge University Press. 1993.
- 2.Dictionarul Explicativ al limbii Române [online]. www.dexonline.ro
- 3.DUTTON, J., DUKERICH, J. (1991), "Keeping an eye on the mirror: image and identity in organizational adaptation". Academy of Management Journal, Vol. 34, No. 3, 517-554.
- 4.Greyser, S. A. (1999). Advancing and enhancing corporate reputation. Corporate Communications, 4(4), 177– 181.
- 5.KAPFERER, J. The New Strategic Brand Management. Philadelphia: Kogan Page, 2008. 560 p.
- 6.KENNEDY, S.H. (1997). Nurturing Corporate Image: Total Communication or Ego Trip. European Journal of Marketing, 31(1), 120–164.
- 7.KOTLER, P., KELLER, K. Marketing Management 14th ed. New Jersey: Prentice Hall, 2012. 456 p.
- 8.MELEWAR, C. Facets of Corporate Identity, Communication and reputation. London: Routledge, 2008. 233 p.
- 9.NEWMAN, W. (1957), "New Insight, New Progress, for Marketing", Harvard Business Review, November-December: 95-102.
10. SCHWARTZ, B. The Paradox of Choice. New York: Harper-Collins, 2004. 282 p.
11. SIMONES, C. (2005) Corporate Identity: Defining the Construct. Warwick: Business School Research Papers, Number 350.

EVALUATION OF THE MARKET POSITION OF AIRLINES IN MOLDOVA BY APPLYING THE SWOT ANALYSIS METHOD

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Abstract. In a period marked by the complex and dynamic process of globalization, civil aviation is in a continuous development. The volume of passengers carried by air in the Republic of Moldova is also growing from one period to another, and new airlines penetrates the market using competitive marketing strategies. As a result of intense competition in this industry the most who has to win is the consumer of these services - the passenger, who chooses of flying between the two local airlines and many others coming from abroad. In order to have an overall view of this industry on the territory of the Republic of Moldova, we use the SWOT analysis tool that is best known for the verification and analysis of the strategic position of enterprises and their business environment. The key goal of it is to identify the strengths and weaknesses of the airlines operating on the local market. Another goal is to highlight the opportunities and threats which they are subject to. The information is fundamental to assess the existing situation, market potential and limits or possible threats from external environment.

Keywords: airline, SWOT analysis, competitiveness, Air Moldova strategy

JEL CLASSIFICATION: M3

I. The development of air transport services of passengers in the Republic of Moldova

From the first successful test of mankind to launch the first daily international flight, almost 100 years from now (London-Paris, in 1919), the plane has developed to the stage where the most distant flight on the Earth has become a matter of hours. Air travel is a common mean of transport for long-distance trips and the only reasonable alternative when timing is the essential and decisive element. The speed of the aircraft and the convenience for passengers are the top reasons for the increasing role played by air transport.

Air transport in the Republic of Moldova has shown a significant increase in development in recent years , driven by the economy development, the country's involvement in the international exchange of goods, international tourism and the competitiveness derived from the emergence of new notorious airlines on the local market. International transport functions are to ensure security of supply and foreign trade, to promote economic development, to supply transport services to passenger and tourism.

Civil Aviation Authority data in the Republic of Moldova show a significant increase in 2016 compared to 2017, both in the number of aircraft takeoffs and the number of passengers carried by air. Analyzing the period of the last 7 years, starting in 2011, it is noticed a substantial increase of specific market indicators (with a small decrease in 2016 compared to 2015). For example, we can say that the number of passengers who traveled by air last year, is close to triple, from about 1 million to 2.75 million. [1]

**Table 1. Evolution of passenger air transport indicators in the Republic of Moldova,
2011-2017**

| Indicator | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Aircraft takeoffs | 15 022 | 16 113 | 16 858 | 19 756 | 22 468 | 22 033 | 27 113 |
| Passenger carriage | 1 046 086 | 1 220 506 | 1 321 236 | 1 781 166 | 2 226 441 | 2 206 266 | 2 744 832 |

According to the data made public by Chisinau International Airport, the top 5 most popular destinations chosen by the airline customers operating on the territory of Moldova are: Moscow, Istanbul, Antalya, London and Venice. [2]

Moscow, with a market share of 31.26%, falls into the category of destinations for passengers traveling mostly for work purposes, but also for those who travel through Chisinau for European, Asian or North American destinations. The city of Istanbul is chosen by business and those with connections to more distant destinations, and Antalya is positioned as a tourist destination especially in the summer season. London is also a destination chosen by the business, but also by people working there. Venice is represented by the Moldovan diaspora, active in the temporary work or living regime or permanently established in the Italian republic.

The largest share of the market has been permanently held, since the beginning of the civil aviation history, by the national company Air Moldova. In recent years, in particular due to the liberalization of air transport and new entrants, the market share of the state-owned company has diminished. In 2016 it accounted for 43%.

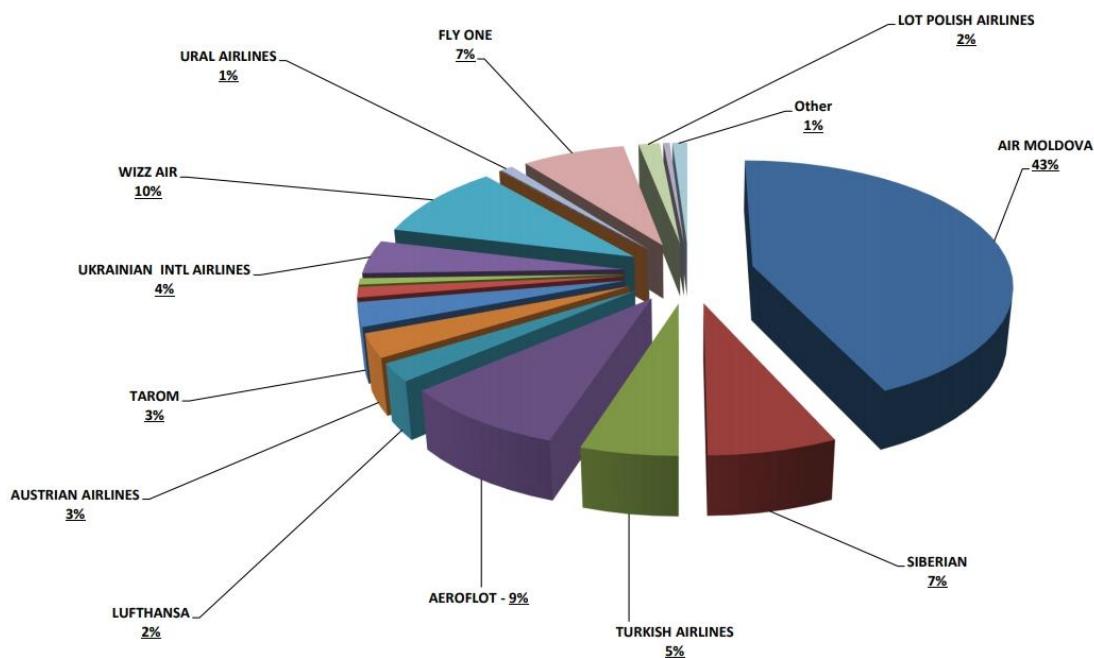


Figure 1. The market shares of the airlines operating on Chisinau International Airport, in 2016

In any modern economy, enterprises are the "driving force" of progress, of development - they are the ones that ensure the survival of society. By studying enterprises, regardless of industry, we highlight their polarization in two categories: some who achieve appreciable, prosperous and steady successes and others who struggle hard to survive, or record modest economic and financial performance staying afloat. Examining the factors that determine the success or failure of a business has led to the demand for specific methodologies to analyze and diagnose companies' activities.

Strategic management is the process by which a firm can achieve materialized results in the significant growth of its performance by consolidating its position on the market, namely through the development, implementation and control of the company's strategy in order to achieve the assumed mission and ensuring the competitive advantage. The strategy of the company is the process by which the top management defines its strategic mission, establishes the strategic objectives necessary for the accomplishment of the mission, chooses the appropriate strategy for achieving the objectives and specifies the ways of its implementation. Making strategic decisions on defining the company's mission, setting strategic goals and the strategy to achieve them, implementing the plan that materializes that strategy is based on a broad process of analyzing and evaluating the environment, its competitive situation and the situation the company and its ability to cope with the changes in this environment. Strategic management is essentially specific to the

continuous analysis, on one hand, of the enterprise's external environment in order to anticipate or timely to deal with changes within it and, on the other hand, of the internal situation of the enterprise to assess its ability to face changes.

The method of analyzing the environment, competitiveness and the company in general, presented below, is the SWOT analysis. We chose this type of analysis because this method is essential for the development of any economic unit.

The SWOT analysis provides a radiograph of the company at one point. Thus, SWOT analysis is the most important management technique used to understand the strategic position of a company / organization because: Provides a comprehensive situation showing the internal values and internal critical points of the company / organization (values and critical points that are defined in relation to the objectives the company must achieve, and their importance);

- helps management to identify the external forces that influence, positively or negatively, also the success of the company / organization in achieving the proposed objective;
- helps management to get the answer to the question: "Can we go along this way to achieve the organization's goal?"
- helps to quickly highlight the strengths and weaknesses of the company / organization;
- helps to understand and know the broad context in which the company / organization operates.

The name comes from English and is an acronym with the following meanings: Strengths, Weaknesses, Opportunities, Threats. Strengths and weaknesses are the elements within the company that management has direct control, while opportunities and threats come from outside and can influence positively or negatively, depending on how dynamic the company is and how predictive / inspired it is when making decisions. This tool helps to build an overall business profile so to take advantage of strengths and opportunities on the one hand and on the other hand to reduce or even remove weaknesses and threats. [4]

By analyzing these business features, we can get a clearer picture of the current state of the company, and we will know the milestones to ensure business performance. In addition, the analysis helps to understand and understand the broad context in which a company operates.

II. The Practical Aspects of the SWOT Analysis

The role of SWOT analysis for a company is to help:

- To consolidate the strong points;
- To improve the weak points;
- To explore the opportunities of the external environment;

To avoid the threats that may influence negatively profits or the business in general.

It is important to carry out the SWOT analysis on separate business areas, so not to miss out on important issues and to have a structured approach.

Examples of questions to which a SWOT analysis should necessarily respond:

| S – Strengths | W –Weaknesses |
|---|---|
| <ul style="list-style-type: none">• What is the company best at?• What specific skills does the work force have?• What unique resources does it have?• What are the financial resources at its disposal?• What technology will be used?• What is the degree of optimization of internal processes? | <ul style="list-style-type: none">• What is the company worst at?• What kind of training do the employees lack?• What is the level of loyalty of the employees?• What is its financial position? |

| O – Opportunities | T – Threats |
|--|---|
| <ul style="list-style-type: none"> • What changes in the external environment can be useful? • What new technology it's possible to have access to? • What new markets it could open? • How could the consumer behavior of potential customers be changed? | <ul style="list-style-type: none"> • What could present a competition at our expense? • What legislation could hit the company's interests? • What social changes could be a threat to the business? • How will the economic cycle affect the company (growth-decline)? |

| Aria of company | Strengths | Weaknesses |
|---------------------------------|---|---|
| | It refers to the company's characteristics. Competitive advantages are also included. | They include components of the internal environment that generate competitive disadvantages |
| Production or services offering | High quality of products. Licenses, patents, unique manufacturing / service providing processes. Innovations. | Equipment ageing |
| Finance. | Sources of financing. Rigorous Financial control | Lack of funding. |
| Marketing. | Brand awareness. Effective positioning on the market | Reduced promotion. |
| Human Resources | Experience and expertise in business and specific areas. Loyalty | Big fluctuation. Lack of required skills |
| Opportunities | | Threats |
| Government policies | Government programs, grants, European funds | Monopoly owned by state-owned companies, frequent changes in legislation. |
| Economic | Favorable economic environment. | Recession, rising business costs. |
| Social | Raising consumer incomes. Existence of qualified staff. | Change in customer consumption behavior, income reduction, low birth rate. |
| Technological | Innovations, cheaper technologies, increased access to new technologies. | Low access to new technologies, their high cost. |

When making the SWOT analysis, several sources of information need to be used: market analysis, employees, and partners to include as many points of view as possible.

III. Assessing the position of Moldovan airlines by applying the SWOT analysis

In assessing the position of airlines in the Republic of Moldova by applying the SWOT analysis carried out by the author, that was focused on the aspects related to their presence on the local market, the strategy developed, the level of competitiveness and other important general

indicators. Four companies in the top five by the number of passengers carried in 2017 were selected for this analysis.

Air Moldova, the national operator recorded a record traffic in 2017, carrying more than 1,130,000 passengers, which is the best result of the company's 25-year history (over 20% more than in 2016). It also contributed to the development of transit traffic through the Chisinau International Airport, carrying almost 160,000 passengers. [5]

Table 1. SWOT Analysis of the National Airline Company - Air Moldova, SE

| S – Strengths | W – Weaknesses |
|---|---|
| <ul style="list-style-type: none"> • 27 regular direct flights to Europe, Russian Federation, South-West Asia; • 4-5 charter flights / year; • Annual increase in the number of passengers transported (direct and transit routes). Leader on the domestic market - 41.33% in 2017; • Interline, code-share collaboration with over 50 airlines, which extends the network of flights worldwide; • Convenient connections; • Air & Rail program Germany, Austria, Spain, Belgium (airline + train); • Most staff are qualified and have good work experience; • High onboard service; • Notorious and well positioned brand as a national airline; • Modern and convenient web page for use; • Close cooperation with a big number of local tourism agencies; • The presence of cargo service | <ul style="list-style-type: none"> • State enterprise - limited flexibility in actions / projects; • Being a state-owned enterprise it is always in the attention of media representatives; • Creating a negative public image by competitors by deliberately providing denigrating campaigns in the media; • Minor technical incidents and delays; • Seasonality in sales; • Lack of a clear medium and long term marketing. |
| O – Opportunities | T – Threats |
| <ul style="list-style-type: none"> • Concluding new interline agreements; • Development of the flights to the areas with large Moldovan diaspora; • Improved customer service; • Extending the fleet with new aircraft; • Development of additional services (tourism, etc.); • Developing the existing loyalty program; • The growth of the local air transport market; • Government support. | <ul style="list-style-type: none"> • The presence of new European competitors, both classical and low-cost on the Moldovan market; • Technical problems of aircrafts; • Rising fuel prices for aircrafts; • Decrease in the purchasing power of the population; • Decrease of the Republic of Moldova population. |

Source: Elaborated by the author

Fly One, with 100% private capital, was founded in 2016 and focuses mainly on charter flights. It managed to get a market share of 17.77% in 2017 due to the lower price tickets compared to the practices of other existing operators. [6]

Table 2. SWOT analysis of the company with private capital Fly One, Republic of Moldova

| S – Strengths | W – Weaknesses |
|--|--|
| <ul style="list-style-type: none"> • 100% Private Capital; • Positioning as a low-cost company; • Different price strategy and good positioning versus the main competitor - Air Moldova; • Get a market share of over 15% in just two years from entering the market. | <ul style="list-style-type: none"> • Entering the local market in a non-transparent way and with much criticism from the authorities and the population; • High emphasis on charter flights; • Outdated aircraft. |
| O – Opportunities | T – Threats |
| <ul style="list-style-type: none"> • Increasing the target customer segment; • Obtaining the IOSA / IATA certificate. | <ul style="list-style-type: none"> • The emergence of new competitors on the market; • Technical problems of aircrafts. |

Source: Elaborated by the author

Wizz Air is a low-cost Hungarian airline and the largest low-cost airline in Central and Eastern Europe. The first flights operated from Chisinau were in 2013 to the Italian cities of Rome and Venice. The share of the market segment occupied in 2017 is 11.66%.

Table 3. SWOT analysis of Wizz Air, Hungary

| S – Strengths | W – Weaknesses |
|---|---|
| <ul style="list-style-type: none"> • Low-cost airline; • The operation of the most required flights for Moldovan diaspora; • The presence of an air base in Chisinau; • Famous brand; • Good communication with the market | <ul style="list-style-type: none"> • Operarea a 8 curse aeriene europene • Operation of 8 European directions |
| O – Opportunities | T – Threats |
| <ul style="list-style-type: none"> • Starting operating new flights to the Russian Federation or the European Union. | <ul style="list-style-type: none"> • Strengthening the presence of other airlines on the local market. |

Source: Elaborated by the author

Aeroflot is the main national carrier of Russia and the largest airline. Founded by the Government of the Russian Federation on February 9, 1923, Aeroflot is one of the oldest airline in the world and one of the most famous brands in Russia. Its market share in Moldova is 7.15%.

Table 4. SWOT analysis of the airline Aeroflot, Russian Federation

| S – Strengths | W – Weaknesses |
|--|---|
| <ul style="list-style-type: none"> • Member of Global Alliance Sky Team; • 146 routes in 52 countries; • Large aircraft fleet; • Convenient connections via Moscow to other major cities in the EU or the USA. | <ul style="list-style-type: none"> • The presence of a single air route: Chisinau-Moscow |
| O – Opportunities | T – Threats |
| <ul style="list-style-type: none"> • Opening new air routes connecting Chisinau with major cities in Russia | <ul style="list-style-type: none"> • Strengthening the presence of other airlines on the Moldovan market |

Source: Elaborated by the author

IV. CONCLUSIONS

With the ratification of the Agreement on the Liberalization of the Common Aviation Area signed in Brussels on 26 June 2012 between the Republic of Moldova and the European Union, the liberalization process has helped to attract more airlines to the market, increasing the competition among air operators and reducing the ticket prices with up to 50%.

The SWOT analysis, as demonstrated above, can be a useful tool for making conclusions about strategies applied by companies in an industry. This is a powerful tool but involves a great subjective element. It is better when it is used as a guide and not as a prescription. Successful companies rely on their strengths, correcting weaknesses and taking protection measures against internal weaknesses and external threats. They also have an overview of their business environment and recognize and take advantages of new opportunities faster than competitors. The SWOT analyzes carried out in this article allow creating a strategic vision in the following way:

- a. It is a source of information for strategic planning.
- b. Build the strengths of airlines.
- c. Reverse weaknesses.
- d. Maximize response to opportunities.
- e. Break company threats.
- f. Help to identify the basic skills of air operators.
- g. Help to set goals for strategic planning.
- h. Help to know the past, the present and the future, and thus, take advantage of past and current data, the future can be outlined.

Analyzing the current air transport market in the Republic of Moldova, we can outline the following trends in commercial passenger transport:

- Due to the changes in the market, a more competitive environment is stimulated and created by facilitating the entry of new air operators on the market, and this fact will be represented in the offers of travel and tourism services.
- The volume of passengers transported will increase in the next period. This will happen as a result of the increase of the population's incomes, the drop in ticket prices, and the emergence of new travel needs of the people.
- The complicated competitive environment in the air transport industry will still create major difficulties in airlines management even when the demand, due to different reasons, increases.
- Airline companies that have recently entered the market will try to get from the market share of the national operator "Air Moldova", once having the monopoly position in this sector.
- The market shares of low-cost airlines will continue to grow.
- Competitive struggle among existing companies that currently takes place on the travel ticket prices on the same destinations: Moscow, Sankt-Petersburg, Venice, London, etc. will lead to the opening of new flights to Europe, Russia or the Middle East and to the level of service delivery, by improving the experience of customers on board, in travel agencies or even online.

Under the conditions outlined above, the role of marketing strategies that national operators may have in relation to competing companies from abroad is increasing and requires a more complex and segmented marketing approach in their entire activity.

BIBLIOGRAPHY:

1. The Civil Aeronautical Authority of the Republic of Moldova /Autoritatea Aeronaotică Civilă a Republicii Moldova: <http://www.caa.md/>;
2. Annual statistical reports of Chisinau International Airport/Rapoartele statistice anuale ale Aeroportului Internațional Chișinău;
3. "Rezervele pieței serviciilor de transport aerian de pasageri din Republica Moldova", Survey, Radu Bezniuc, Chișinău, 2011.
4. <https://www.plandefacere.ro>
5. www.airmoldova.md
6. www.flyone.md
7. www.aeroflot.ru

BENEFITS AND IMPEDIMENTS OF TRANSITION PROCESS TO EUROPEAN STANDARDS

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Abstract. *The Association Agreement between the Republic of Moldova and the European Union implies a progressive process of adopting the European Standards and respectively removing the national conflicting standards. Among the conditions required to become a member are included the transparency, openness and impartiality, but also the fact that at the time of submitting the application the country must have implemented at least 80% of the European adopted standards and for the rest of 20% must provide an implementation calendar. This transition from the European standards represents a series of benefits as well as impediments from economic agents. The research presents a series of recommendations offered to small and medium enterprises (SMEs) from the Republic of Moldova for the process of transition to EN standards.*

Key words: standards, transition, GOST, EN, implementation, benefits, performances, quality.

JEL CLASSIFICATION: D40, D80, K0, M2.

INTRODUCTION

With current technological progress and modernization, standards are reviewed periodically to replace some obsolete requirements that do not fit the current state of technics, technology and modern science. The standards in place are an outdated source for the level of industry and economy development. Thus, the standards undergo changes or are canceled despite the adoption of other standards that are subject to the requirements of the European market.

This practice is a necessity in case of a national economy development. The standards are nothing but an amalgam of knowledge and experience accumulated by specialists in different fields. Due to the ever-changing technology process, standards must pursue a continuous change and upgrading concurrently with market relations.

Because this them is a new one, we use only the electronic sources of some publications.

MATERIALS AND METHODS.

The research methods are simple and effective. We used qualitative data analysis method. This method has provided directives to achieve the proposed objectives.

RESULTS AND DISCUSSIONS.

By offering a notion of '*standard*', it will be noted that this is a document which specifies rules for products, production processes or services, the application of which, with some exceptions, is voluntary. In addition, it will be mentioned that at a national level the process of standardization is governed by the 1995 Standardization Act 590, republished in 2012.^[1] The standard is probably one of the quality pillars, it represents the best and the easiest possible way to communicate, to know the technical level unanimously accepted at national, European and international level in the field of activity of any company or organization and, last but not least, to design and develop management practices.^[2] The standard is a technical specification established by consensus, adopted by a recognized standardization body, for repeated or continuous application, the observance of which is not mandatory.^[3]

Standards are documents, established by consensus and approved by a standardization body, which provide, for common and repeated use, rules, guidelines or characteristics for activities or their outcomes, in order to obtain the optimum order in a context.\

On the territory of the Republic of Moldova are applied the original Moldovan standards, as well as the international, regional (European and interstate) and other states, adopted as Moldovan standards.

Standards offer benefits to the business environment, regulatory authorities and the entire company. They contribute to the harmonization of technical specifications of products and services,

making industry more efficient and helping to remove technical barriers to trade. Compliance with standards makes it possible to achieve a consistent image for consumers, increase their confidence, improve their quality by improving the quality of products and services, and have positive effects on the environment.

For the private sector Standards offer important business benefits, helping to improve the quality of products and services offered, attracting new customers and opening up new outlets, gaining sustainable competitive advantages, and lowering costs that are reflected in business growth and development .

For the public sector and regulatory authorities, regulators decide whether to use standards to support their technical regulations. Once a decision to apply a standard is made, it will be necessary to choose the most appropriate method of referring to it in the text of the regulation according to the needs of the authorities.

For society, the Moldovan Standards Institute has a current portfolio of over 25,000 Moldovan, European, international, interstate and other Moldovan standards, as well as Moldovan standards, which offer practical solutions and bring significant benefits to almost all the sectors of activity.

The compliance of products and services with Moldovan standards confers presumption of conformity, so consumers can be confident that they are safe, harmless, reliable and qualitative. For example: Moldovan standards on home appliances safety, toy safety, etc. contribute to a safer life.

Moldovan standards on air, water and soil testing methods, gas and radiation emissions, and environmental aspects contribute to protecting the environment and ensuring the health and safety of the citizens.

The process of European integration followed by the national authorities and provided by the Association Agreement with EU foresees a progressive process of European standards adoption and respectively the removal of national conflicting standards. ^[1] According to the art. 173, point 5 of the Association Agreement between Republic of Moldova, on one side, and the European Union and European Atomic Energy Community and their Member States, on other side, claims that in order to integrate the standardization system, RM: ^[4]

- a) *progressively transposes the European Standard (EN) as national standards, including harmonized European standards, the voluntary use of which provides a presumption of conformity with the EU legislation transposed into the legislation of the Republic of Moldova;*
- b) *together with this transposition, withdraws national standards that contravene European standards;*
- c) *gradually meets the conditions for full membership of European standardization bodies.*

European standards are the technical requirements adopted by one of the European standardization bodies (CEN – European Committee for Standardization, CENELEC - European Committee for Electrotechnical Standardization, including ETSI - European Telecommunications Standards Institute). They aim at protecting human life and health and the environment, being used to remove technical barriers in international trade while also unifying and harmonizing the rules applied by economic agents. At an European level, the regulatory framework in the field of standards is regulated by the Regulation nr. 1025/2012 of EU regarding European standardization, effective from 1 January 2013. ^[1]

According to art. 14 from Law nr. 20 regarding standardization, the standards are voluntary. These are mandatory in case they are incorporated in a business contract; references are made to them in regulations or the manufacturer declares that his product corresponds to a certain standard. ^[5] The application of standards gives the presumption of conformity of products and services with the technical regulations established by the authorities and the compliance with the requirements ensures the quality of the products/services offered on the market.

The process of standards cancellation does not hinder the products export in the country, where this standard is in place. The cancelled standards are stored in the National Standards Fund and are available at the request of those interested. Even after the GOST standards cancellation is

possible the export according to the RM cancelled standard, but which is valid on the territory of another country.

In GOST standards is widely used the descriptive method specific for the Soviet space with a planned economy. Thus, the adoption of European standards is essential. The expenses required for the implementation of these are in fact investments in your own business, in the maturity and competitiveness of the company that will open new markets, conquering new consumers.

The standardization has a significant contribution to ensuring and improving the quality of products and services, ensuring the interoperability and compatibility, offering consumers the benefit of more qualitative and safer products and services. At the same time the opportunity to export in the European Union, which derives from the Free Trade Agreement with EU, implies that economic agents must have not only intelligence and creativity, but also to fulfill some technical and standardization requirements.^[6]

Mostly, there are 4 major benefits in the implementation of European standards.

Table 1. Benefits of European standards implementation

| ACCESS TO A SINGLE EUROPEAN MARKET | FACILITATING FAST TECHNOLOGICAL TRANSFER AND REDUCING COSTS |
|---|---|
| The European standards help to remove technical barriers, which are in the way of trade and facilitate the access to a Single European Market | European standards increase business competitiveness by facilitating the access to new technologies and reduce the production and sales costs |
| IMPROVING PERFORMANCE AND QUALITY | ACCESS TO THE MOST INNOVATIVE SOLUTIONS |
| The European standards offer guidelines to ensure that the product or service will satisfy a series of quality features, which will help your business succeed. | European standards encourage the dissemination of knowledge and innovating solutions from different areas |

*Source: Elaborated by the author based on:
http://www.standard.md/public/files/2017/doc/brosura_imp_st_EU.pdf, [Visited on 08.01.2018].*

Among the conditions demanded by the Republic of Moldova to become a member of the EU are transparency, openness and impartiality, but also the fact that at the moment of submitting the application, the country must have implemented at least 80% of the European adopted standards and for the remaining 20% to submit an implementation calendar. Therefore, out of about 22.000 existing European standards (CEN/CENELEC), national authorities will have to adopt at least 18,600 to have 80% of European standards transposed at national level.^[1] At the present time about 15,000 European standards are adopted as Moldovan standards, but most of these standards should only be adopted, their application at national level having a number of impediments, such as:

- Applying a European standard requires special knowledge and training;
- The volume of European standards and the relatively short period for adoption, but also their implementation;
- The implementation of standard requires investments in new equipment and technologies;
- Lack of some clear mechanisms to monitor the implementation of European standards;
- More than 50% of standards are in English or French languages;
- The familiarization with GOST standards and the “rejection” of European standards by standards users (authorities, manufacturers, CEO, testing laboratories);
- The reticent position of economic agents;
- The mistaken opinion that the cancellation of a conflictive GOST standard would hinder the export to CIS states.^[7]

The adoption of European standards stipulates a series of conditions, which generate controversy among supporters of the ENs, on the one hand, and supporters of old standards, preserved even in the

Soviet period (GOSTs). The aspects inherent the incompatibilities between the European standards and a big part of GOSTs, as well as other aspects that concern them, consist of:

- The conditionality of the European integration process and, respectively, the obligation to gradually take over the European standards;
- Differences of a technical nature;
- Legal contradictions;
- Rules dictated by the market economy;
- Trends from regional trade and reorientation of Moldovan exports.

During the transition from GOST standards to European ones, the author has developed another set of implementation benefits in the figure below. The eight-pointed star represents a symbol of regeneration^[8], as well as the process of implementation of new standards.

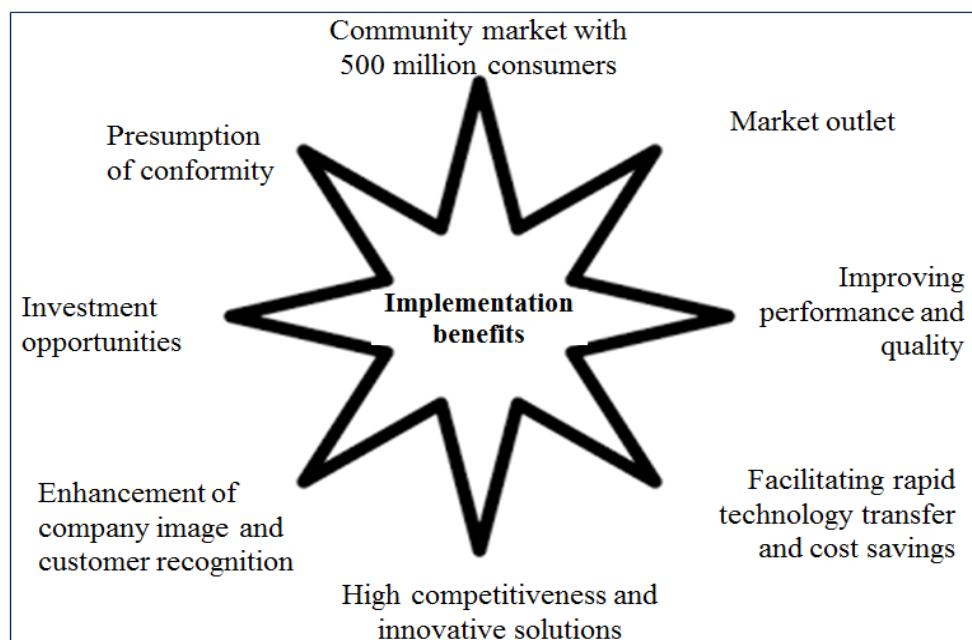


Fig. 1. European standards implementation star

Source: Elaborated by the author

Due to the fact that the SME sector represents over 97%^[8] from the total number of enterprises in the Republic of Moldova, they represent the biggest part of standards users. At the same time, SMEs are subject to the biggest challenge in the process of transition from GOST standards to European. Thus, in the Table 1 are represented some recommendations for SMEs in the process of transition.

Table 2. Process of transition to European standards in countries of Eastern Partnership

| <i>Recommendations for SMEs in the process of transition to the European standards in the Eastern partnership countries</i> |
|--|
| 1. <i>Monitor the process of adopting European standards as national standards.</i> The evidence of the process will allow a more effective planning of adoption the new European standards. The list of standards for adoption is available at www.ons.md |
| 2. <i>Be aware of the fact that the implementation of the European standards offers competitive advantages to products/services done and provided by SMEs.</i> In order that the transition process to be effective, SMEs need to get acquainted with the benefits of European standards implementation (see Fig.1) |
| 3. <i>Participate actively at the process of identification and cancellation of the GOST conflictive standards with the European standards.</i> SMEs are useful for NSO in the process of identification and cancellation of conflictive standards in setting the optimum transition period. |

4. Do reasonable efforts for the European standards implementation in a short period.

SMEs must be aware that they are acting in a competitive environment, thus they must strive to implement European standards and benefit from their advantages as soon as possible.

Source: Created by the author based on: Guide. Facilitating the transition to European standards with the Eastern Partnership countries.

http://www.standard.md/public/files/2017/doc/Final_Guide_Romana.pdf page 5-6. Seen on 08.01.2018

CONCLUSIONS.

Due to the European integration process, the Republic of Moldova will have to go through the progressive process of adopting European standards and dismantling conflicting national standards. The implementation of European standards provides four big benefits, as: access to a single European market, improvement of performance and quality, facilitation of fast technological transfer and costs reduction, access to the most innovative solutions. Among the benefits following the implementation of EN standards, their application at national level pursues the following impediments: the need of knowledge and special training to apply a new EN standard, as well as investments in new equipment and technologies, a big amount of EN standards to be implemented in a short period, the reticent position of economic agents and others. During this research, recommendations were provided for SMEs in the process of transition: monitoring the process of EN standards adoption as national standards, awareness of the fact that the implementation of European standards offers competitive advantages, active participation at the process of identification and cancellation of conflicting GOST standards with EN standards, application of reasonable efforts to implement EN standards as soon as possible.

REFERENCES:

1. Translated by author. Adoptarea standardelor europene. <http://infoeuropa.md/files/adoptarea-standardelor-europene-si-situatia-din-sectorul-agro-alimentar-provocari-si-oportunitati.pdf> Visited on 15.03.2018
2. Translated by author. ASRO. Ce este un standard. <http://www.ccail.ro/asro2.php> Visited on 15.01.2018
3. Translated by author. Legea cu privire la standardizarea națională. <http://lex.justice.md/md/364089/> Visited on 15.01.2018
4. Translated by author. Acord de asociere RM-UE. Articolul 173, punct 5. <http://www.mfa.gov.md/img/docs/Acordul-de-Asociere-RM-UE.pdf> Visited on 15.01.2018
5. Translated by author. Activitatea ISM în contextul național. http://www.standard.md/public/files/2017/doc/Activitatea_ISM_in_contextul_naional._Standardizarea._Aspecte_fundamentale.pdf Visited on 15.01.2018
6. Translated by author. Implementarea standardelor europene. Beneficii pentru companiile din Republica Moldova. http://www.standard.md/public/files/2017/doc/brosura_imp_st_EU.pdf Pag 2. Visited on 08.01.2018
7. Translated by author. Tranzitia de la standardele GOST la standardele europene. http://www.standard.md/public/files/2017/doc/Tranzitia_de_la_standardele_GOST_la_standardele_europene.pdf Pag.3. Visited on 09.01.2018.
8. Translated by author. Retrospectiva IMMurilor din RM. <http://odimm.md/files/ro/pdf/Perspectiva%20sectorului%20IMM.pdf> pag.15. Visited on 26.01.2018
9. Translated by author. Religion Facts. <http://www.religionfacts.com/eight-point-star> Visited on 09.01.2018
Retrospectiva IMMurilor din RM. <http://odimm.md/files/ro/pdf/Perspectiva%20sectorului%20IMM.pdf> pag.15. Visited on 26.01.2018
10. Translated by author. Ghid. Facilitatea procesului de tranzitie la standardele europene cu țările Parteneriatului Estic. http://www.standard.md/public/files/2017/doc/Final_Guide_Romana.pdf pag. 5-6. Visited on 08.01.2018

DEVELOPMENT OF TALENT MANAGEMENT POLICIES IN THE REPUBLIC OF MOLDOVA

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Abstract. Talent management, globally, has long been considered the key to a successful business, being implemented not only at the level of organizations but also promoted and sustained through state-owned policies and strategies.

In the Republic of Moldova, the new type of human resources management - Talent Management – develops slowly and partially, but in the context of globalization and internationalization, as well as for raising the level of competitiveness, the elaboration and development of talent management policies at national level is a necessity.

The purpose of the research is to analyze and evaluate current and prospective talent management policies, as well as to submit proposals for their further development by the state.

Keywords: policies, talent, talent management.

JEL CLASSIFICATION: M12.

INTRODUCTION

Considered the key to success of a business [14] or presented as a solution for diversification in society, talent management, globally, is applied at organization level through efficient selection policies, strategies and programs, increasing the level of commitment of employees by evaluating and developing team members.

However, in the context of globalization and raising the level of competitiveness, talent management is a concern not only at the level of organizations but also at the state level. Thus, states are in competition to better develop their skills to attract the talent they need and to keep those who contribute to increasing competitiveness, innovation and growth.

To facilitate this, some countries adapt their economic and social policies to the new technological challenges by including talent management policies in their national development strategies, and they are prerequisites for further development at the level of organizations.

Regarding the Republic of Moldova, the statement that at organizational level there are some problems related to the implementation and development of the efficient management of human resources (eg. the function of HR, responsible for the elaboration and implementation of efficient strategies and policies of personnel, accomplishes only some operational activities related to human resources management) [2, p. 12], is, in our opinion, also applicable to talent management.

Also, the large-scale international migration of the domestic labor force has led to a shortage of human resources (including talents) on different trades and / or skill levels, which further raises problems with which the HR specialists will face and obviously the organizations [2, p. 12].

Probably, problems concerning the implementation and development of talent management at organizations positioned our country ranked 86 out of 119, the competitiveness of talents [10, p. 25].

Thus, in the context of globalization and internationalization, as well as for raising the level of competitiveness, the elaboration and development of talent management policies at both national and organizational level is an imperative necessity, based on scientific reasoning.

The goal and the objectives of the research are the current and prospective analysis and evaluation of the talent management policies in the Republic of Moldova, as well as the submission of proposals for their further development both at national and at organizational level.

MATERIALS AND METHODS.

In order to carry out this research, the basic information support is:

- the annual comparative evaluation reports on the Global Talent Competitiveness Index (*GTCI*) - being a resource for decision-makers in developing strategies to increase their competitiveness, contributing to the design and implementation of various policies;

- The National Strategies of the Republic of Moldova, both the current and the project ones, considered sources that lay the foundations of the implementation and development of talent management policies.

In order to accomplish the present research, a multitude of qualitative and quantitative methods have been used, such as: documentary analysis; induction and deduction; systemic analysis, historiographic method; comparative method; observation and statistical analysis.

RESULTS AND DISCUSSIONS.

Evidence, such as talent and talent management, implies global attention, is the Annual Report on the Global Talent Competitiveness Index [10].

This Annual Report assesses how countries grow, attract and retain talent, being a resource for decision makers in developing strategies to increase their competitiveness, contributing to the design and implementation of more effective policies in such areas as education, employment and immigration, but not only.

Analyzing the statistical data presented in the last three reports, we note that if only a few years ago Moldova was on the 64th position, then in 2018 it is already 24 positions lower, ranking 86th out of 119 countries (table 1).

Table 1. Rankings on GTCI of the Republic of Moldova

| | Year | | |
|------|---------------|---------------|---------------|
| | 2015-2016 | 2016-2017 | 2017-2018 |
| Rank | 64 out 109 | 75 out 118 | 86 out 119 |

Source: Elaborated by the author based on the data of the GTCI [8-10]

Currently, in relation to 119 countries, the Republic of Moldova ranked 96th in terms of enable of talent, 95th in terms of talent attraction, 89th place in development or grow, 69th place to retain talents, 79th place on the ability to create vocational and technical skills, 66th place in global knowledge skills [10, p. 25].

As mentioned above, the Report is not only a source of statistical data but also a resource for decision-makers in developing strategies to increase their competitiveness, contributing to the design and implementation of more effective talent policies.

In the context of the GTCI, the talent competitiveness refers to the set of policies and practices that enable a country to develop, attract, and empower the human capital that contributes to productivity and prosperity.

The GTCI is an Input-Output model (see Figure 2) in the sense that it combines an assessment of what countries do to produce and acquire talents (Input) and the kind of skills that are available to them as a result (Output) [10, p. 11].

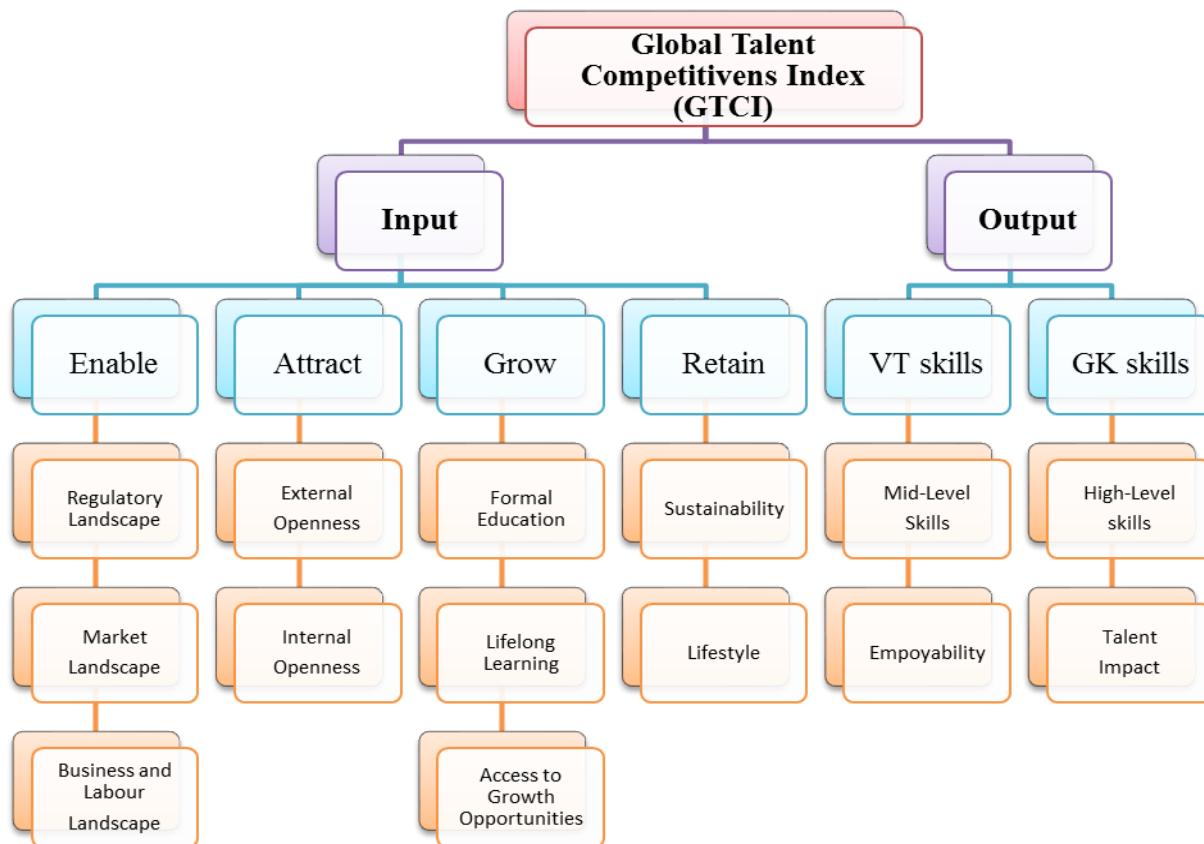


Figure 3. The GTCI 2018 model

Source: The Global Talent Competitiveness Index 2018 [].

Note: GK Skills = Global Knowledge Skills; VT Skills = Vocational and Technical Skills

The Input pillars of the GTCI are inspired by the Attract-Grow-Retain framework used by corporations to steer talent management. Multinational corporations frame talent management in these terms, defining talent management as an organisation's efforts to attract, select, develop, and retain talented employees to meet their strategic needs.

The talent competitiveness Input sub-index, which is composed of four pillars describing the policies, resources, and efforts that a particular country can harness to foster its talent competitiveness [10, p. 12].

Since the GTCI focuses on efforts made by countries, the model is largely fed by macroeconomic and country-level variables.

Attracting talent, in the context of national competitiveness, should be viewed in terms of luring foreign valuable resources, both productive businesses (through foreign direct investment and the like) and creative people (through high-skilled migration), while internal attraction is focused on removing barriers to entering the talent pool for groups such as those from underprivileged backgrounds, women, and older people.

Growing talent has traditionally meant education, but its definition should be broadened to include apprenticeships, training, and continuous education as well as experience and access to growth opportunities (although we may acknowledge that most skill development occurs through experience, much remains to be done to conceptualise and measure its role). The more talented the person, the wider the global opportunities he or she can find elsewhere.

Retaining talent is thus necessary to ensure sustainability, and one of the main components of retention is quality of life.

In addition, the regulatory, market, business, and labour landscapes within a country facilitate or impede talent attraction and growth; the GTCI classifies these elements as part of the *Enable* pillar.

Together, Enable, Attract, Grow, and Retain constitute the four Input pillars of the GTCI model.

It is worth mentioning that GTCI 2018, promotes talent diversity, diversity is considered as a lever for talent competitiveness [10, p. 3].

Diversity has practical and operational value as a tool for competitiveness if it is considered at the different levels of decision making where it can make a difference. In line with the philosophy and purpose of the GTCI, five key levels of analysis are considered here: individuals, teams, organisations, cities, and nation states.

In identifying the factors that would contribute to raising the level of global talent competitiveness in some countries, there have been found the so-called foundations for the development of talent management policies.

In this context, since 2010, the European Union through The Europe 2020 Strategy, has identified talent and later developing its management policies [3]. For example, the Excellent Science part of Horizont 2020 supports the world-class science in Europe, by developing, attracting and retaining research talent [4].

Another country, which has adopted a talent development plan, is Singapore. In 2013 was adopted - A Sustainable Population for a Dynamic Singapore: Population White Paper, Singapore National Population and Talent Division [13]. Thus, in order to ensure diversity in the economy, it is necessary to have foreign talent in Singapore to complement the Singaporean workforce. Foreign talent can help Singapore tap new markets and grow new sectors, sustaining Singaporean jobs in the process.

Singapore (2nd) is the top performer across the Enable and Attract pillars, with uniformly high scores across their underlying sub-pillars—only the variable Tolerance of immigrants shows a relatively poorer performance [10, p. 22].

Another country, which has also adopted a strategy or talent development plan, is China. This talent cultivation plan, the National Medium- and Long-term Talent Development Plan (2010–2020), creates a blueprint for creating a highly skilled national work force within the next 10 years [7, p.1]. In Chinese, the plan refers to the development of rencai, which can be translated as educated and skilled individuals.

The plan lists six major categories of talent that the government will help cultivate:

- 1) Political leaders and officials;
- 2) Business entrepreneurs;
- 3) Technical professionals;
- 4) Highly-skilled rencai in different industries;
- 5) Practical rencai for rural areas and agriculture; and
- 6) Professional social workers.

Also, the plan specifies the key fields that should be prioritized to promote a more reasonable structure of talent [7, p. 8].

In order to identify the causes that led to the loss of previous positions in the GTCI, we note that there are no legal bases in the development of talent management policies in the Republic of Moldova.

Thus, analyzing the National Development Strategy "Moldova 2020": 8 solutions for economic growth and poverty reduction, it was found that there is no provision or mention regarding talents or talent management [12].

The above finding also applies to the National Employment Strategy for the years 2017-2021 [6], as well as the National Youth Development Strategy 2020 and the Action Plan on its implementation [5].

Analyzing the Concept Note on the vision of the National Development Strategy "Moldova 2030" [11], we already identify certain mentions - directions, namely:

- attracting talented people - into the philosophy of the new National Development Strategy and

- complementing policies with talented, well-equipped teachers to guide pupils and students to acquire the necessary skills in the future - in Strategic Measures: the vision for Moldova 2030.

Obviously, this is plausible, but in our opinion, the legal foundations must be developed, including the entire pillars range established by the GTCI model, namely: Enable, Attract, Grow, and Retain.

CONCLUSIONS.

On the basis of the above it can be concluded that in the Republic of Moldova, both at state level and at the level of organizations, it is urgent and imperative to take the following measures:

- Introducing the fundamentals of talent management policies into the current National Development Strategies - which is seen as a prerequisite for further development within organizations;
- inclusion in the National Development Strategy "Moldova 2030" of all 4 pillars that are described in the GTCI model;
- policy diversification across different areas, not limited to teaching staff.

REFERENCES:

1. BÎRCĂ, A., 2016. Talent recruitmentandselection – issueandchallenge for organizations in the Republic of Moldova. *Annals of the „Constantin Brâncuși” University of Târgu Jiu, EconomySeries, Special Issue*, (Vol. I.), pp. 62-68.
2. BÎRCĂ, A., 2016. Teză de doctor habilitat în științe economice. Redimensionarea managementului resurselor umane în contextul asocierii Republicii Moldova la Uniunea Europeană. Disponibil pe: http://www.cnaa.md/files/theses/2016/24679/alic_birca_thesis.pdf (vizitat la 20.04.2018).
3. Europe 2020 Strategy. Disponibil pe: https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/europe-2020-strategy_en (vizitat la 20.04.2018).
4. Horizont 2020: Excellent Science. Disponibil pe: http://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/find-a-call/h2020-structure-and-budget_en.htm#ExSc (vizitat la 20.04.2018).
5. HOTĂRÂREA Guvernului Republicii Moldova „Cu privire la aprobarea Strategiei naționale de dezvoltare a sectorului de tineret 2020 și a Planului de acțiuni privind implementarea acesteia”. În: Monitorul Oficial, nr. 400-403/2014.
6. HOTĂRÂREA Guvernului Republicii Moldova „Cu privire la aprobarea Strategiei naționale privind ocuparea forței de muncă pentru anii 2017–2021”. În: Monitorul Oficial, nr. 109-118/2017.
7. Huiyao, W., 2013. China's National Talent Plan: Key Measures and Objectives. Disponibil pe: http://robohub.org/wp-content/uploads/2013/07/Brookings_China_1000_talent_Plan.pdf (vizitat la 20.04.2018);
8. INSEAD (2015): The Global Talent Competitiveness Index 2015-2016, Fontainebleau, France. Disponibil pe: http://www.gtc2015-16.com/wp-content/uploads/2016/01/GTCI_2015-16_R5_Full_Book_Ebook.pdf (vizitat la 20.04.2018);
9. INSEAD (2016): The Global Talent Competitiveness Index 2017, Fontainebleau, France. Disponibil pe: http://www.gtc2017.com/documents/GTCI_2017_web_r3.pdf (vizitat la 20.04.2018);
10. INSEAD (2018): The Global Talent Competitiveness Index 2018, Fontainebleau, France. Disponibil pe: <https://gtcistudy.com/wp-content/uploads/2018/01/GTCI-2018-web.r1-1.pdf> (vizitat la 20.04.2018);
11. Nota de concept privind viziunea Strategiei Naționale de Dezvoltare ”Moldova 2030”. Disponibil pe: <http://cancelaria.gov.md/ro/advanced-page-type/snd-moldova-2030> (vizitat la 20.04.2018);
12. LEGEA Republicii Moldova pentru aprobarea Strategiei naționale de dezvoltare „Moldova 2020”. În: Monitorul Oficial, nr. 245-247/2012.
Disponibil pe: <http://lex.justice.md/index.php?action=view&view=doc&id=345635> (vizitat la 25.04.2018).
13. Singapore National Population and Talent Division (2013), A Sustainable Population for a Dynamic Singapore: Population White Paper, Singapore National Population and Talent Division, Singapore. Disponibil pe: <https://www.mti.gov.sg/MTIInsights/Documents/FAQs%20for%20White%20Paper.pdf> (vizitat la 25.04.2018).
14. STĂNIȚ, A., ȘERBAN, A., 2013. Managementul talentelor – cheia unei afaceri de succes. *Management Intercultural. Volumul XV*, Nr. 2 (28), pp. 77-82.

THEORETICAL REFLECTIONS ON THE ESSENCE AND ROLE OF FACILITY MANAGEMENT

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Abstract: Facility management has been one of the fastest growing professional subjects for some years. However, a widely accepted and implemented body of knowledge is still lacking.

The article aimed is to try to get to grips with the wide and demanding range of basic concepts of field, like: the essence of Facility management; facility strategy; organizational synergy; customer focus; facility performance; future directions and challenges.

Keywords: Facility Management, strategic facility planning, facility manager functions, space management.

JEL CLASSIFICATION: M19, O30, Z32

INTRODUCTION

Facility Management (FM) is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology. In the past several decades, FM has been a professional integrated approach to assist a lot of business organizations, educational institutions and government departments in managing property facilities effectively and providing a high degree of support services. But because of the rapid development FM is suffering from an acute identity crisis, this is why in different literature we have different definitions of this profession. In the Russian literature we can see that FM is oriented to manage space and to reduce the costs, in the European sources it is indicated that FM management is responding at 3 levels (strategical, tactical, operational), in Indian literature we can find examples where the facility management main tasks are to keep people safe and healthy. Based on the range of implementation of FM we can conclude that it can be easily implemented at national level as services or tourism.

Facility Management is often an unseen industry that operates in the background, the buildings and services to operate efficiently and safely that allows people to go to work and to focus on their tasks but not to worry if the building is clean, comfortable and safe.

According to the Standard EN 15221-1:2007, “Facility Management – Part 1: Terms and Definitions” considers FM as the integration of processes within an organization to maintain and develop the agreed services which support and improve the effectiveness of its primary activities. Starting from this basic concept, the subject of information should be considered in relation to some fundamental statements.

It is widely accepted that facility management (FM) covers a wide range of facility services and the management of which can contribute to the relative success or the partial failure of an organization's business. FM is a key function in managing facility resources, support services and working environment to support the core business of the organization in both the long and short-term.

It is commonly agreed that the primary function of FM is to handle and manage support services to meet the needs of the organization, its core operations and employees. FM is the backing function coordinating physical resources and workplace and additional services to user and process of works to support the core business of the organization. The central issues of FM practice consist in place or facility, people or users of the building and processes or activities in the facility. Nutt defines FM as the management of infrastructure resources and services to support and sustain the operational strategy of an organization over time. The major purposes of FM can be distinguished in two aspects: to support and sustain the operations work and activities of organizations and their staff and to manage work environment and support services.

First of all, the agreed support services are provided in a coordinate way through an integrated management in relation to various levels, characterized by different tasks, competences and responsibilities. According to the standard EN 15221-1:2007, it is possible to list three main levels.

The first one is the strategic level, characterized by decision makers whose mission is the achievement of the objectives of the organization in the long-term period through actions such as:

- Defining the Facility Management strategy in compliance with the organization strategies;
- Drawing policy guidelines for space, assets, processes and services;
- Maintaining relations with the client and authorities, lessees and tenants, strategic partners, associations and others;
- Developing risk analysis and providing the direction to adapt changes in the organization, first simulating and then managing the impacts of services on the primary activities;
- Setting the Service Level Agreements (SLA) and the key performance.

According to the standard EN 15341:2007, "Maintenance Key Performance Indicators", the indicator is the measured characteristic of a phenomenon, according to a given formula, which assesses the evolution the indicators are related to objectives.

The indicators can be used to:

1. measure a status;
2. compare;
3. Diagnose, that in the future ensures a better development of the following levels.

The second level is the tactical one, characterized by the manager's competences, engaged in the implementation and the monitoring of the strategic objectives for the medium term, whose main tasks are:

- Developing business plans and budgets;
- Managing projects, processes, agreements and Facility Managements teams;
- Making Facility Management objectives feasible;
- Defining SLAs and interpreting KPIs (performance, quality, risk and value);
- Managing and optimizing the use of resources;
- Monitoring compliance to laws and regulations;
- Reporting results and changes;
- Communicating with internal or external service providers at a tactical level.

The third level is the operational one and it is managed by operators that deliver the planned services in accordance with the SLAs to the end users day by day, constantly monitoring and checking the service processes by:

- Monitoring the service providers;
- Carrying out the planned activities;
- Receiving requests for services via help desk or service line;
- Collecting data for performance evaluations, feedback and demands from end users;
- Reporting to tactical level;
- Communicating with internal or external service providers at an operational level.

Theoretically, there are different visions about Facility Management depending on the school that researched the FM. But in the end we can see that the opinion of the researches has crossed some common functions of FM: safety, support and infrastructure. Another version of the Facility Management levels with the components and trends of FM is represented in Fig 1.

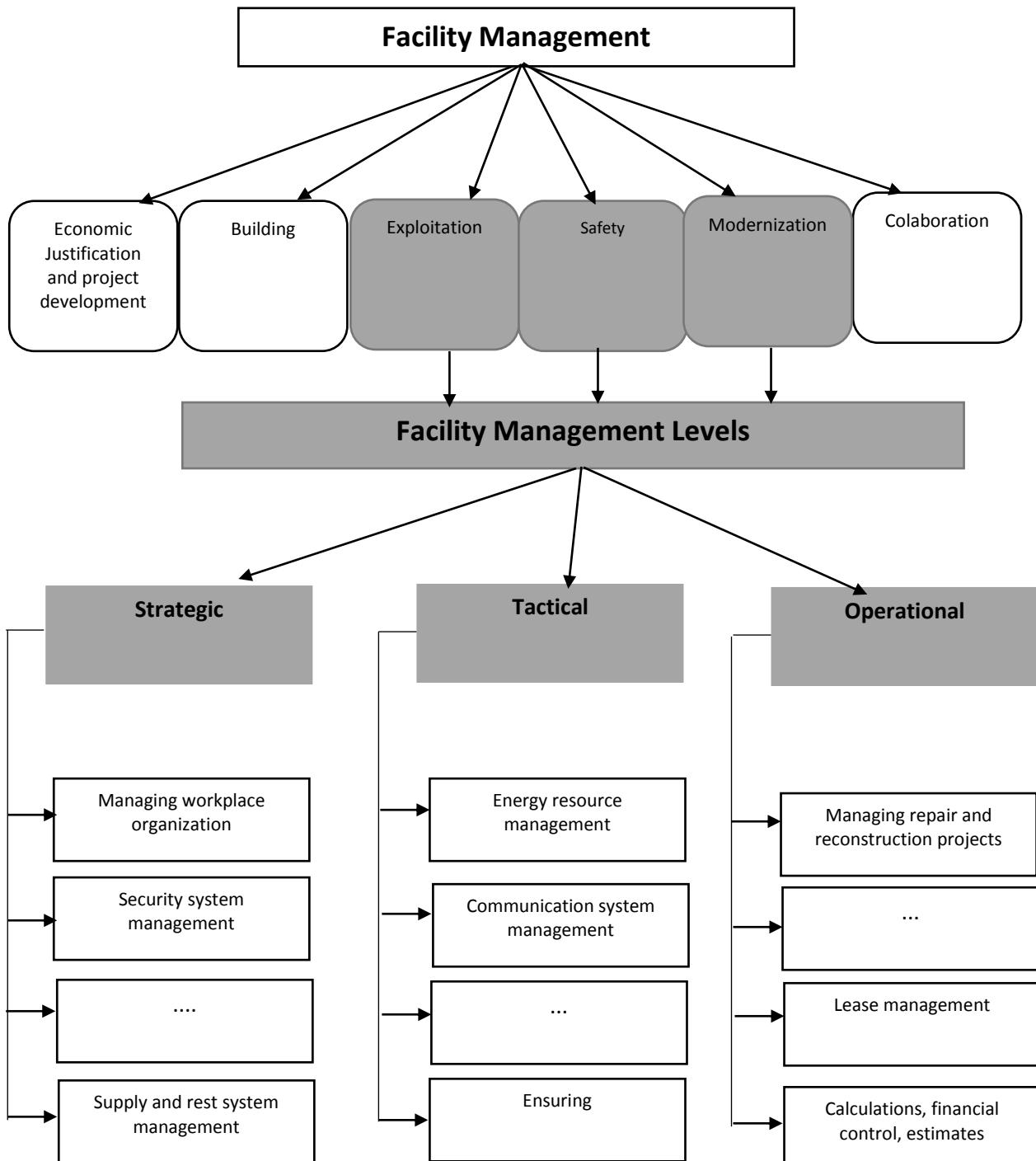


Fig.1 Components and trends of facility management.(IFMA)

Source: Nutt, B, 2000

In practice FM has been adopted differently in different organisations and in different contexts.

The scope and responsibility of FM in an organization may be wider than others. It would be rather rare that an organization will require all support services:

- Real Estate &Property Management,
- Facility Project Management,
- Maintenance & Repairs,
- Building services & operations,
- Office services,
- Planning & Programming,
- Space Planning and Management,
- Operations Administration,

➤ Employee supports and Services.

FM tend to respond to the needs of the organizations in many ways. Analyzing different companies it can be noticed that even in the same business the Facility Management practices could be diverse influenced by culture, business objective and nature of that organization. Although there are common themes and approaches to FM, regardless to the size and location of buildings, however, these may not necessarily result in common solutions to problems.

The arrangements of FM are related to a particular personality, needs, circumstance and environment of the organization at the time. FM is recognized as an organization-specific function that is based on a real business need (Owen, 1999.).

Alexander (1994) suggests that the role FM should be defined by the relationships of facilities to the core business of an organization in which success is measured by the degree and quality of support they provide to achieving key business objectives.

The function, role and responsibility of Facility Management tend to differ in different organizations and circumstances. Selecting an appropriate role of FM for the given organization and circumstance is crucial.

This is why to implement successfully the FM in a company it is necessary to create a team that is lead by Facility Manager who knows well the tasks need to be done to assure a high rate of success.

Facility Managers operate across business functions. The number one priority of an FM is keeping people alive and safe. Here we can see that the Facility Manager operates in two levels that are deducted from the main levels of Facility Management:

➤ Strategically- tactically: has the meaning to let know the client or the user to understand the impact of the decisions through place, risks and costs

➤ Operationally: is to ensure a high efficiency and low costs.

This 2 levels may be accomplished by managing this functions:

EHS: environment. Health and safety.

The FM department in an organization is required to control and manage many environment and safety related issues. Failure to do so may lead to unhealthy conditions leading to employees falling sick, injury, loss of business, prosecution and insurance claims. The confidence of customers and investors in the business may also be affected by adverse publicity from safety lapses.

Fire Safety

The threat from fire carries one of the highest risk to loss of life, and the potential to damage to property or shut down a business. The facilities management department will have in place maintenance, inspection and testing for all of the fire safety equipment and systems, keeping records and certificates of compliance.

Security

Protection of employees and the business often comes under the control of the facilities management department, in particular the maintenance of security hardware. Manned guarding may be under the control of a separate department.

Maintenance, testing and inspections

Maintenance, testing and inspection schedules are required to ensure that the facility is operating safely and efficiently, to maximize the life of equipment and reduce the risk of failure. Statutory obligations must also be met. The work is planned, often using a (computer-aided facility management) system.

Building maintenance

Building maintenance comprises all preventative, remedial and upgrade works required for the upkeep and improvement of buildings & their components. This works may include disciplines such as painting and decorating, carpentry, plumbing, glazing, plastering, and tiling.

Cleaning

Cleaning operations are often undertaken out of business hours, but provision may be made during times of occupations for the cleaning of toilets, replenishing consumables (such as toilet rolls, soap) plus litter picking and reactive response. Cleaning is scheduled as a series of periodic (daily, weekly, monthly) tasks.

Operational

Involves organization and insurance of the communication through all the departments of the company in order to avoid the stop of working or the duplications of the contracts. Even to ensure a easily access to the information and to a better collaboration to solve the problems that appears.

Business continuity planning

All organizations should have a continuity plan so that in the event of a fire or major failure the business can recover quickly. In large organizations it may be that the staff move to another site that has been set up to model the existing operation. The facilities management department would be one of the key players should it be necessary to move the business to a recovery site.

Space allocation and changes

In many organizations, office layouts are subject to frequent changes. This process is referred to as churn, and the percentage of the staff moved during a year is known as the (churn rate). These moves are normally planned by the facilities management department using (computer-aided design). In addition to meeting the needs of the business, compliance with statutory requirements related to office layouts include:

- the minimum amount of space to be provided per staff member
- fire safety arrangements
- lighting levels
- signage
- ventilation
- temperature control
- welfare arrangements such as toilets and drinking water

Consideration may also be given to vending, catering or a place where staff can make a drink and take a break from their desk.

CONCLUSIONS.

Analyzing these functions, we can conclude that Facility Management can easily be used not only inside of a corporation but outside too it. Facility Management can be used at a national level where the strategic objective of facility management is to provide better infrastructure and logistic support to business and public endeavors of all kinds and across all sectors.

Because Facility Management has a large specter of use it can easily cooperate with other managerial sciences (Tourism Management, Project Management, Services Management and others) and with other domains (IT, Design, Construction). In this case Facility Management can be a new idea for countries that are at the development stage, to achieve high results at a national level and at the company level. Facility Management with the policy the low costs can help the little business to avoid the barriers of the market and to become competitive to the Organizations from developed countries. Conforming to the statistics for the countries that are in the stage of low development the biggest part of the national economy is occupied by Agriculture or Tourism. To develop the Tourism in a country with low level of development is necessary to implement the Facility Management as an Government project, that will allow to administrate better the place, to reduce the costs for maintenance of touristic place, and the cost for energy, also will allow to create a more comfortable ambiance and safely that will correspond to the International Standards.

REFERENCES.

- 1.IFMA, What is FM?, http://www.ifma.org/what_is_fm/index.cfm
- 2.HKIFM, What is FM?, http://www.hkifm.org.hk/public_html/about.html/underline
- 3.Nutt, B.: Linking FM practice and research. Facilities 17(1/2), 11–17 (1999)

4. Chotipanich, S.: Positioning facility management. *Facilities* 22(13/14), 364–372 (2004)
5. Nutt, B.: Four competing futures for facility management. *Facilities* 18(3/4), 124–132 (2000)
6. Tay, L., Ooi, J.T.: Facilities management:a jack of all trades. *Facilities* 19(10), 357–362 (2001)
7. Nutt, B.: Moving targets. *Facilities Management World* (11), 25–28 (1998)
8. Price, I.: Can FM evolve? If not, what future? *Journal of Facilities Management* 1(1), 56–69 (2002)
9. McLennan, P.: Service operations management as a conceptual framework for facility management. *Facilities* 22(13/14), 344–348 (2004)
10. Chotipanich, S.: Positioning facility management. *Facilities* 22(13/14), 364–372 (2004)
11. Yiu, C.Y.: A conceptual link among facilities management, strategic management and project management. *Facilities* 26(13/14), 501–511 (2008)
12. IFMA, Strategic Facility Planning: A White Paper on Strategic Facility Planning (2009)
13. Knowledge Management and Information Tools for Building Maintenance and Facility Management. ISBN. 978-3-319-23957-6
14. Ikediashi Dubem, O. Ogunlana Stephen, Boateng Prince. 2014. Determinants of outsourcing decision for facilities management (FM) services provision. *Facilities* 32:9/10, 472-489.
15. Nateque Mahmood Muhammad, Prasad Dhakal Subas, Keast Robyn. 2014. The state of multi-purpose cyclone shelters in Bangladesh. *Facilities* 32:9/10, 522-532.

BALANCE IMPORTANCE OF DIFFERENT TEAM ROLES AND STYLES

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Abstract. The article discusses the situational theories and models of leadership, as well as the concepts that explain the different styles and team roles of managers and employees. Conclusions and recommendations are drawn based on the study conducted by the author at a number of enterprises operating in the country. Their key message consists in the need to balance the styles and team roles that contribute to the building of high performance teams.

Key words: teams, leadership, team performance, changes, teambuilding, leaders' tasks, organization, team roles.

JEL CLASSIFICATION: M12

INTRODUCTION.

Situational theories were developed in the middle of the last century. They explain leadership from the position of different situations that arise in an organization. Situational understanding of leadership remains relevant for the modern managers and leaders: the situational theories provide the scholarly basis of modern leadership and assist leaders in boosting team performance. This is explained by the fact that there is no single type of leadership traits and behavior that would always guarantee the success of a leader and his team in different situations.

Both the leaders' traits and behavior are situational and depend on the situation. Therefore, the performance success is determined by a specific situation at a particular period of time that takes place in an organization. Knowledge of situational theories makes it possible to understand the relationship between leadership styles, personal leadership characteristics, the qualities of employees (followers), and the variables of the organizational situation. In its turn, such situational analysis makes it possible to adapt the behavior style to the specifics of the current business situation and achieve the desired performance. A leader needs to understand its own style before he can apply it. Without such understanding, the leader cannot effectively interact with his employees and influence the change (adaptation) of their behavior for the achievement of joint high performance.

BIBLIOGRAPHY.

In contrast to the trait and behavioral theories [1,2,4,6], which explain leadership from the standpoint of individual characteristics and behavior of a leader, the situational approach is more complex and comprehensive [2,4,5,7,8]. First, it describes leadership from the position of a leader and includes his personality traits and behavior. Second, it looks at leadership from the standpoint of followers (employees): their needs, motives, experience, knowledge, skills, abilities for learning, and cohesion. Third, the situational approach discusses leadership from the position of a situation: the nature and content of a task (work performed), strength / weakness of position power, system, structure, types of organizational culture (leader-member relations) – all of it is taken into account.

Thus, the situational analysis allows us to see to what extent the leader's style matches the current situation in an organization and how one can best adapt to the situation in order to ensure the required level of performance. That becomes possible given the definition of a successful leadership style that takes into consideration not only the knowledge of leader's traits and his behavior but also the individual and behavioral traits of a team members and the situation's variables.

Methodology and theoretical research. To our mind, the personality traits of a leader in the modern world are as essential and relevant as the other situational factors. More importantly, according to researchers, they are increasingly becoming an area of greater focus for the in-depth studies in academia and in practical management due to the rapidly changing business world.

Table 1. Situational theories and models: a comparative perspective

| Charact- ristics | Fiedler Model | Hersey-Blanchard “path-way” theory | House and Mitchell Theory | Vroom-Yetton-Jago Model |
|--|--|---|--|--|
| 1 | 2 | 3 | 4 | 5 |
| 1. Leader ship style | <ul style="list-style-type: none"> • task-oriented • relationship-oriented | <ul style="list-style-type: none"> • telling (directive, indicating) • selling (coaching) • participative (supportive) • delegating | <ul style="list-style-type: none"> • supportive • directive • achievement-oriented • participative | <ul style="list-style-type: none"> • autocratic (I, II) • consultative (I, II) • group (inclusion) |
| 2. Leader effecti- veness | <ul style="list-style-type: none"> • leader's ability to apply relationship-oriented or task-oriented style | <ul style="list-style-type: none"> • ability to adapt the style depending on the maturity of followers (professional, mental) | <ul style="list-style-type: none"> • ability to adapt by clarifying the followers' needs and motivation | <ul style="list-style-type: none"> • leader's ability to adapt to situation and behavior of followers |
| 3. Situa- tional factors | <ul style="list-style-type: none"> • task structure • leader's position power • leader-member relations | <ul style="list-style-type: none"> • maturity level of followers (professional and mental): <ul style="list-style-type: none"> • high • moderate • low | <ul style="list-style-type: none"> • followers' traits based on motivation (needs) | <ul style="list-style-type: none"> • employees' responsibilities in shaping the quality of decision based on parameters: <ul style="list-style-type: none"> • time • cost • development |
| 4. Potenti- al and limi- tations | <ul style="list-style-type: none"> • problem of matching leadership styles is addressed by a model “one leader-one situation” | <ul style="list-style-type: none"> • checking prediction potential of a model by applying the model of chosen leadership style efficiency | <ul style="list-style-type: none"> • determining followers' behavior based on their motivation | <ul style="list-style-type: none"> • model focuses more on a situation than on the leader's traits |

Source: summarized by the author from the sources [4, 5, 7]

All the theories and models presented above give different explanations of leadership because they take into account various situational variables (factors). Undoubtedly, all models complement each other. At the same time, models significantly differ with regard to the set of leadership styles, situational variables (factors) and the relationship between them. For example, the effectiveness of leadership is determined differently depending on various situational factors in each of the models.

Many modern scholars link the development of leadership with the implementation of organizational transformations by drawing an analogy with the natural life cycle. In this regard, we should note the significant research of St. Covey [9]. A well-known scholar links the organization's achievements with the development of leadership traits, based on the nature of human potential. St. Covey develops the concept of growing and unleashing human potential and highlights the importance of the interaction between the intellectual, emotional, spiritual and physical intelligences (capacities) of a human potential. The concept explains that the chances of advancing to leaders, who successfully transform organizational reality, can potentially be inherent in all employees. The task is to develop leaders through training, organizational development, professional, and personal coaching.

The importance of the personal integrity approach to leadership in conditions of dynamic situational changes, in our opinion, is confirmed in the studies of an outstanding scholar I. Adizes. His world-known methodology, to our mind, should be seen as a guide for all business executives who are aiming at efficiency and competitiveness of their companies [1; 2]. Therefore, for our

purposes, the Adizes' model has a particularly positive value. The core of his methodology consists in the fact that the successful activity of any organization in today's conditions of ongoing, widespread and inevitable changes depends on the professional performance of the following managerial functions and leadership styles. They include:

- *P (producing results)* – a leader who ensures high performance in short term by or on account of satisfying customer needs;
- *A (administration)* – leadership based on administering. It promotes performance in short term and consists in developing rules and procedures and building up an effective management system;
- *E (entrepreneurship)* – entrepreneur style. A leader-entrepreneur initiates the changes in an organization and adapts the business to new possibilities or threats;
- *I (integration)* – integration style. This function is based on team and partnership (cooperation) leadership [2].

This model provides one of the key conclusions that we believe is important for the achievement of goals and objectives of our study. I. Adizes suggested and comprehensively explained that there are lifecycle stages that every company goes through [1]. Every stage brings its unique set of characteristics and challenges for a business organization. The transition to each next stage of its development changes the role of a leader and all internal systems of an organization. The model of an organization lifecycle includes the following growth stages: courtship, infancy, go-go, adolescence, prime, and stability and the following aging stages: aristocracy, recrimination, bureaucracy, and death of the organization.

It is important for the leader to understand and follow the key message of this model: the main goal of an effective leader is to ensure the organization stays on the prime stage. It has the best levels of company competitiveness, effectiveness, and performance. A longer prime stage of a company is ensured by the leader's competence and management skills directed at maintaining viable all the managerial functions through the appropriate transformation of management styles.

Practical aspects and results of the study. To determine the actual state and organization level of teamwork at domestic enterprises, the author conducted the study. The methods of study included observation, survey, and interviews of employees at the following private limited companies (SRL): Birovits, Ditx, Goodyear Service, Cart nord, Interior Pro, Aptolent Plus, Autocurat, Lingotex, Sigmatur-Com.

The sample on the questions included 157 people. Managers and employees amounted to at least 10% of the total number of employed on the each management level in every company selected for the study.

The analysis of innovations at the studied enterprises has revealed that just over half (54.3%) of the total number of respondents believe that the existing organization of relations in the department (service), in which they work, often contribute to successful innovations (see Diagram 1).

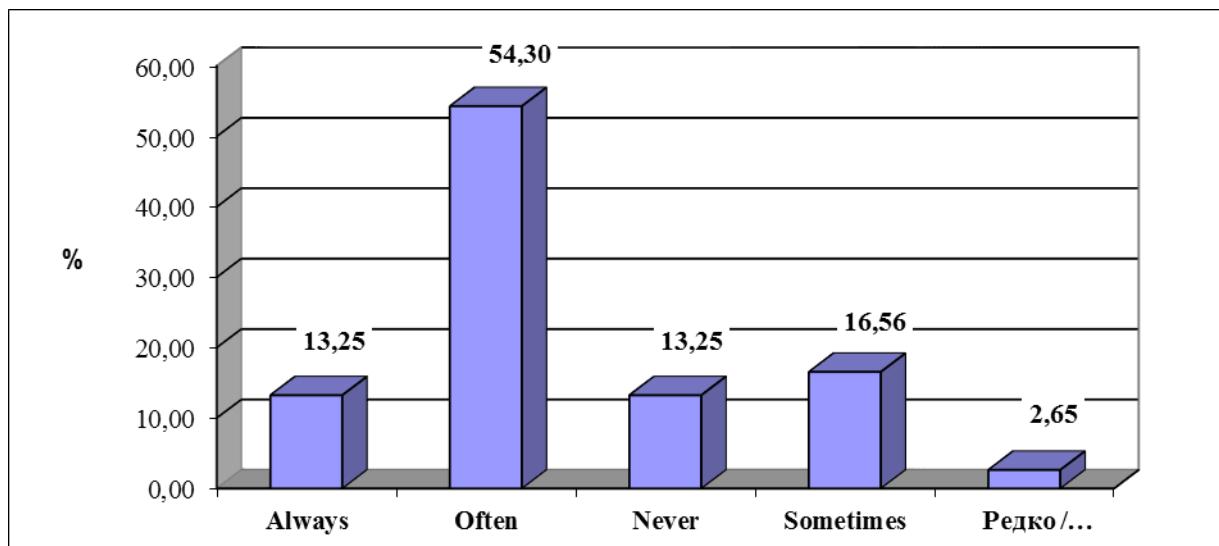


Diagram 1. The impact of work organization and team interactions on the implementation of innovations (in % of the number of respondents)

Source: compiled by the author

The organizational interactions in the enterprise divisions determine the nature of relations between employees and partners, such as suppliers and customers. 50.33% of respondents believe that often the well-coordinated team relations in the divisions, where they work, contribute to establishing positive relations with partners.

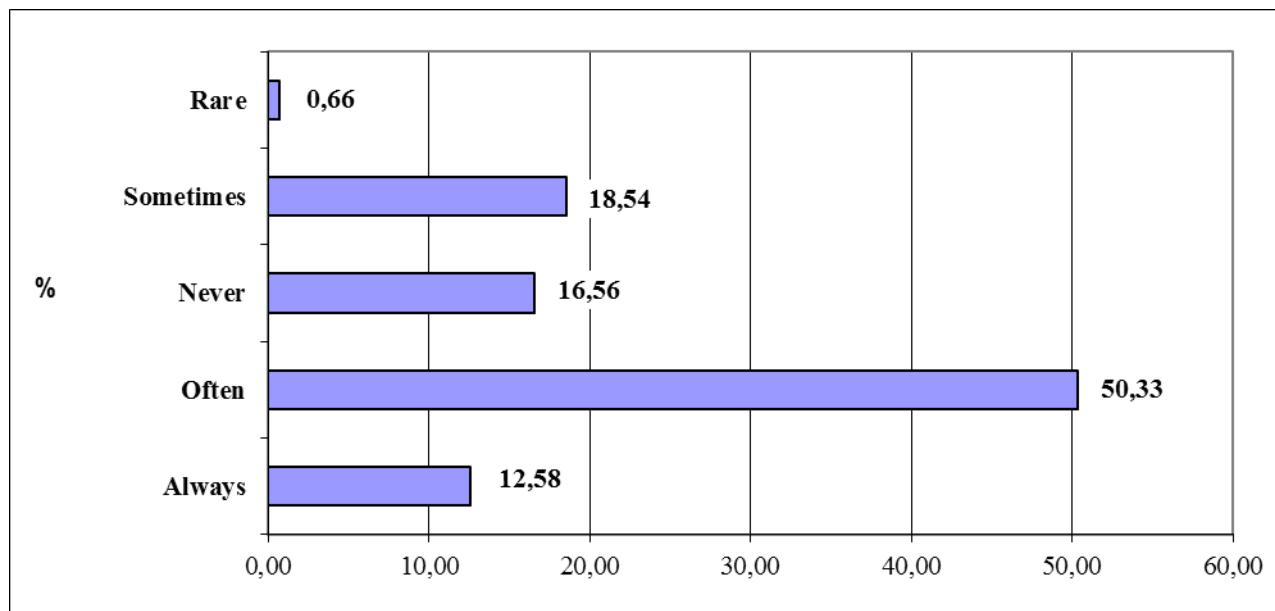


Diagram 2. Organizational interactions in the team contribute to building effective and high performance relations with customers (in % of the total number of respondents)

Source: compiled by the author

In addition, when building teams and, in particular, cross-functional teams, it is important for the studied enterprises to follow the concept of team roles balance. The author of this concept is a world-known expert in teambuilding R.M. Belbin [3]. In his research, the scholar shows which roles of employees and managers contribute to the most successful and effective teamwork. Table 2 below presents the key team roles and describes their typical features, positive qualities (strengths), and allowable weaknesses (see Table 2).

Table 3. Team roles and their description [3, p.134-135]

| Role | Abbr. | Typical traits | Strengths | Allowable weaknesses |
|------------------------------|-------|---|---|---|
| Company Worker (Implementer) | IMP | Conservative, get things done | Organizes work that needs to be done, practical, efficient, reliable | Can be inflexible and slow to respond to new possibilities |
| Chairman (co-ordinator) | CO | Calm, confident, delegate tasks efficiently | Excellent listeners, able to recognize the value that each team member brings to the table, clarifies goals | Trivial intellect and creativity skills |
| Shaper | SH | Extroverted, outgoing, dynamic | Has the drive and courage to overcome obstacles, for example, inaction, self-complacence or self-deception | Can be prone to provocation, impatience, irritation, and may offend people's feelings |
| Plant | PL | Work apart from the team, focused, free-thinking | Creative innovator, imaginative, generate ideas and solves difficult problems | Can be impractical, tend to ignore incidentals, given parameters and constraints |
| Resource Investigator | RI | Extroverted, enthusiastic, curious, outgoing | Explores opportunities, develops contacts, and keeps calm under stress | May lose interest once the initial enthusiasm has passed |
| Monitor-Evaluation | ME | Sober, objective, discerning | Making impartial judgements where required, shrewd, critical thinker | Lacks the drive and ability to inspire others |
| Team Worker | TW | Popular people, calm, perceptive | Capable to bear responsibility for people and situation, prioritize team cohesion, co-operative | Tendency to be indecisive and maintain uncommitted positions during decision-making |
| Completer-Finisher | CF | Pay attention to the smallest of details, concerned with deadlines, orderly, conscientious, and anxious | Establish good relations in a team, perfectionists | May worry unnecessarily, reluctant to delegate |

Source: [3]

The conducted study identified the problems linked to the spontaneity of team building in the structural divisions of the studied enterprises. First, the team building takes into account, to a larger degree, the professional or technical competence of employees. This position is shared by about 49-51% of respondents. Second, the personality component is taken into account regardless the opportunities provided by behavioral team roles of employees. Such position is shared by more than 37-39%. Along with this, 35-38% of respondents pay particular attention to the personality traits and share the view on importance of taking up the team roles related to those personal traits.

The analysis of survey data also showed that the employees of marketing, planning, and financial departments link their behavior with the *plant* role (up to 61-63%) as well as *team worker* and *completer-finisher* roles (31-35%). Managers and staff administration personnel see themselves more as *company worker/implementer* and *team worker* (up to 73%).

The conducted study proved the initial hypothesis on the existing attitude of employees to the team roles in the organization. At the same time, the majority of respondents (63-65%) agreed to take into account only professional competence as the basis of the employee's behavior in a team. To out mind, this position is vulnerable and problematic and does not meet the tasks of building effective teams.

The other extreme is the consideration of employees' personal traits regardless of their technical competence and the connection with possible team roles (39-41%). Approximately the same part (32-34%) of respondents rightly sees the need for a balanced approach to professional and individual components in defining team roles. It is encouraging to see the such team building approach at the studied enterprises as well.

Conclusions and recommendations. Based on the conducted study, the following conclusions and recommendations could be drawn.

- In developing competitiveness of domestic enterprises, it is necessary to foster leadership and promote the team factor. That includes ongoing teambuilding studies and research. The success and efficiency of an enterprise is largely determined by the leadership and team high performance.
- Building effective and high performance teams in business organizations is widely discussed in the management literature. Many researchers rightly believe that the team organization of business can achieve impressive results. They consider the teamwork principle to be the powerful factor contributing to productivity growth, improvement of the quality of products / services, reduction of non-productive expenses, and increase of the level of employee satisfaction with work and customers satisfaction with products.
- The team building in business organizations and the operation of companies on a team basis is becoming increasingly important. That approach is the key factor for achieving business competitiveness, especially in the situations of increased competition and dynamic external environment.
- The study conducted at a number of domestic enterprises demonstrates that the team building should be based on the balanced team roles and styles.

BIBLIOGRAPHY:

1. АДИЗЕС, Ицхак. Управление жизненным циклом корпорации. СПб.: Издательство Питер, 2007.
2. АДИЗЕС, Ицхак. Идеальный руководитель: почему им нельзя стать и что из этого следует. – М.: Альпина Паблишер, 2012.
3. БЕЛБИН Р.М. Команды менеджеров. М.: Издательство «Манн, Иванов и Фербер», 2009. – 238 с. -978-5-9900887-5-7.
4. ГИБСОН, Дж. Л.; ИВАНЦЕВИЧ, Д.М.; ДОННЕЛЛИ, Д.Х.-мл. Организации: поведение, структура, процессы./ Пер. с англ. – М.: Инфра-М, 2000.
5. ДАФТ, Р. Уроки лидерства. – М.: ЭКСМО, 2008.
6. ДРУКЕР П. Задачи менеджмента в XXI веке. – М., 2000. – 325 с.
7. ДРУКЕР П. Эффективное управление. Экономические задачи и оптимальные решения. – М.: Файр Пресс, 2003.
8. Джой-Мэтьюз Д. Развитие человеческих ресурсов / Д. Джой-Мэтьюз, Д. Меггинсон, М. Сюрте / Пер. с англ. – М.: Эксмо, 2006. – 432 с.
9. КОВИ, Ст. Восьмой навык: от эффективности к величию./ Пер. с англ. – М.: Альпина Паблишер, 2010.

STRATEGIC MANAGEMENT OF HUMAN RESOURCES IN THE REPUBLIC OF MOLDOVA

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Abstract. *The article explores the basic concepts and approaches of strategic management of human resources. There are explored the problems and importance of strategic management of human resources at micro and macro levels, as one of the most important factors of social and economic development of the Republic of Moldova.*

Key words: *strategic management of human resources, economic growth, management, Moldova.*

JEL CLASSIFICATION: L84, M12

INTRODUCTION

At the basis of all processes (except natural) that happen in the world are the results of people's activities. Activities can be realized as for the interests of all mankind as for the particular community or individual.

The society improves because of the interaction of various resources, among which human resource deserve the great attention.

Human resources is a certain complex of qualities and characteristics of a person, which characterizes his ability to do a certain kind of work. Besides, this concept can be considered in the context of a certain organization, a region or the state as a whole.

Implementing of social and economic reforms is impossible without realizing the key role of human resources in the economic development of society, as well as recognizing that a person is also the final goal of any production.

Today, the most important factors of national competitiveness are not natural and financial resources, but human resources, we mean people, their professional and personal qualities, their labor morale and desire to achieve goals, their knowledge and skills, creative and innovative abilities, their qualifications, professional and psychological capabilities, willingness to face the challenges of economic modernization and their ability to create the economic basis for sustainable development. The increase of requirements for the quality of human resources becomes a general economic condition for the development of the social production.

Strategic management is one of the most important socio-economic characteristics of any organization. This aspect has a special significance while carrying out state reforms practically in all directions. The well-being of the personnel depends on how the management pursues a personnel policy is being made; consequently it determines the productivity of labor, the profit of the enterprise, as well as the effectiveness of the introduction of state reforms, regardless of the economic situation in the country.

In the current conditions of tough competition, quick technological changes and dependence of the development of the company on the information uses, the most relevant is the effective use of all the available resources. At the same time, the most effective ways to increase competitiveness in the market are to use the potential of the organization's employees more efficiently, because people create know-how, process information, participate in the production and sale of products, etc. And therefore, the concept of smart management of human resources, so-called investment in human capital, which, according to a number of specialists with the right management can give profit exceeding the initial investment.

For all the organizations, large as well as small, manufacturing and operating in the service sector, human management is the most important. Without properly selected, deployed and professionally trained human resources, no organization can achieve its goals and survive. This provision is fundamental in the management concept.

A person can be regarded as a labor force and can be treated as capital. If a person acts as a formal, mechanical performer of his duties and orders from his superiors, and a sufficiently large number of such people work like this, but if a person possesses a developed intellect, a creative individuality, an enterprising character, this is not just a workforce but a valuable capital. And he must be treated as a supreme value, as the leading factor in achieving all management goals [1].

The current situation in the Republic of Moldova determines the relevance of the chosen topic of the article and it determines the main directions of the research.

The main purpose is to deepen the theoretical and practical foundations in the field of strategic human resource management for the Republic of Moldova, in accordance with the highest standards for achieving a systemic and synergistic effect, both at the organization level and at the state level.

MATERIALS AND METHODS.

Writing the article we used scientific works of scientists and researchers in the field of management, economics and sociology, which paid special attention to the importance of human resources.

Official statistics were the basis for the analysis of the socio-economic situation in the world and in the Republic of Moldova.

The problem of strategic management of human resources was researched using various research methods, taking into account existing doctrines, concepts and principles developed by famous scientists in the field of human resources management.

The historical method is used in the first part of the article determining and developing strategic management of human resources. The logical method is reflected in the study of the system study from the simple to the complex.

General methods of research made it possible to explain the essence of strategy and human resources, both at the microlevel, we mean the enterprise level and at the macro level, that is, at the state level.

There were applied methods of analysis and synthesis also, mainly in the definition of basic concepts, as well as in the analysis of key indicators, using, among other things, official statistics.

RESULTS AND DISCUSSIONS.

Human resources are a certain set of qualities and characteristics of a person, which characterizes his ability to act a certain kind. In addition, this concept can be considered in the context of an individual organization, a region or the state as a whole. Human resource management in the system of interests of key actors is shown in figure 1.

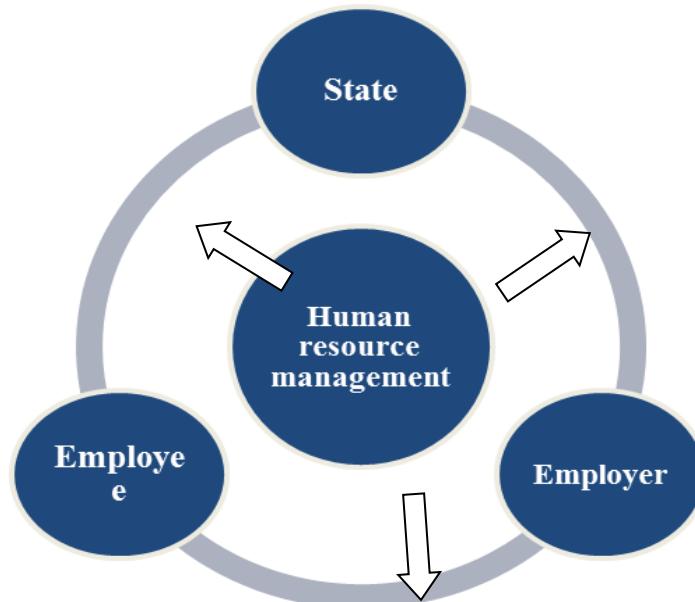


Figure 1. Human resource management in the system of interests of key actors

The concept of strategic human resources management has attracted the attention of many people of practitioners, scientists and experts in this field, although some of them point a great controversy between the terminology of strategic human resources management and reality. But despite this, many leading managers successfully apply the corresponding concept in practical business.

The American scientist R. Daft writes that the management of human resources regards the activities to attract, prepare and maintain the effectiveness of the workforce. For purposes of macrolevel, rather than for the level of specific enterprises, this definition is the most exhaustive [4].

Analyzing the theory of human management, it is possible to unite different viewpoints. Many publications write about two poles of views on the role of man in social production:

1. Man as a resource of the production system (labor, human) is an important element of the production and management process.

2. Man as a person with needs, motives, values, relationships is the main subject of management.

Human resource management is a strategic and complex approach to managing people who contribute individually and collectively to the organization's goals [2].

The strategic management of human resources indicates the general direction of the organization's movement towards achieving its goals through human management. It is known that human capital is the most powerful source of competitive advantage, and it is people who implement strategic plans, so senior managers must fully consider these factors when developing corporate strategies. Strategic human resources management is an integral part of strategic plans.

According to Hendry and Pettigrew, the strategic management of human resources has four goals:

- application of planning;
- logical and consistent design and management of personnel systems based on employment policies and human resources strategies, which, moreover, are often reinforced by a certain philosophy;
- establishing the correspondence between the activities and policies of management by human resources and a certain clearly defined business strategy;
- consideration of employees of this organization as a strategic resource for achieving an advantage in competition.

The field of human resources management has moved from national problems to multinational and more global ones. Concerns are raised by the issues of ecology, health protection, education of the population. In the organizational field, human resources management used to focus only on operational personnel issues, but now it includes more strategic issues related to the business interests of the organization itself [6].

There are following aspects for researching human resources:

- individual psychological (level of personality);
- socio-psychological (level of the team);
- sociological or socio-economic (the level of society and its substructures).

Strategic human resource management is an approach to the practice of human resources that addresses business challenges and makes a direct contribution to long-term objectives. The primary principle of Strategic human resource management is to improve business performance and uphold a culture that inspires innovation and works unremittingly to gain a competitive advantage. It's a step above traditional human resources and has a wider reach throughout the organization.

In the organization itself, the application of strategic personnel management gives a huge advantage, because it allows to obtain a synergistic effect.

Local authors note that in order to obtain a synergistic effect, it is necessary to observe the following conditions:

- good development of the system for the external and internal market;
- flexible system of work organization;

- payment systems based on the principles of a complex accounting of the personal contribution and the level of professional competence of each employee (in this connection, special attention should be paid to the evaluation and remuneration of the employee);
- high level of participation of workers and working groups in discussing problems and making management decisions;
- sharing of authority to subordinates, which is the most important and at the same time the most difficult principle of personnel management;
- functioning of the extensive communication system, which is the integrating factor of the whole model of strategic personnel management.

U. Astley and C. Fombrun first proposed the notion of a "collective" strategy. By their definition, strategy is a process in which the mission of the company is formulated and its goals are defined; the process by which a company uses its resources to achieve its goals.

Charles J. Fombran claimed that the effective functioning of the organization is based on the following three key aspects:

1. Mission and strategy of organization.
2. Organizational structure.
3. Human Resource Management.

The main conclusion made by Fombran is that the management of human resource systems and organizational structures must be consistent with the organization's strategies.

Strategic human resource management includes typical human resource components such as hiring, discipline, and payroll, and also involves working with employees in a collaborative manner to boost retention, improve the quality of the work experience, and maximize the mutual benefit of employment for both the employee and the employer.

For developing the human resources for the benefit of the national economy, it is necessary to use special system approaches.

The strategic management of human resources in the Republic of Moldova is a relatively new and poorly developed area, the importance of which is rapidly growing in recent years.

In the context of the organizations of the Republic of Moldova, the importance of strategic management of human resources is determined by the following principles:

1. Planning of human resources in conditions of lack of qualified employees.
2. Application of an integrated approach to the development of human resource management systems based on an effective labor relations policy and personnel strategy.
3. Coordination of directions and actions of personnel policy with the strategy of organizational development, as well as with state strategic policies.
4. Attitude to personnel as to a strategic resource that provides the organization with the necessary capabilities.

As a result, the strategic management of human resources is a sustainable system of using human resources and actions aimed at ensuring the implementation of the overall development strategy.

One of the main problems that should be researched is the demographic dynamics of the population of The Earth. Statistics indicate that the world population is getting older. If in 1950 there were only 8% on the planet reaching 60+, then in 2000 - 10%, and by 2050, according to the UN prognosis, there will be 21% [8].

The population is getting older very rapidly in Moldova. According to the National Bureau of Statistics, 17.2% of the population belonged to the category 60+ in 2016, which corresponds to a high level of aging. The indicator is deteriorating too fast not only because of poor birth rate, but also because of mass labor migration.

In 2016, population which is active in the economy was 1.3 million. The main component, the employed population was 96% of the economically active population [9].

The demographic dynamics and changes in the structure of the population of the Republic of Moldova in recent years indicate difficulties that have a negative impact on the formation of human

capital. Sustained decrease in the total population is due to the negative natural growth and migration.

Current and future demographic trends have a negative impact on the formation of the labor supply in the Republic of Moldova, which indicates a steady decline in the working-age population, as well as a steady increase in the population of the third age, and it is not possible to influence the situation in any way.

Economic growth in the Republic of Moldova is based on consumption and money transfers, but this exposes the country's economy to a number of vulnerabilities. Even greater danger associated with this model of economic growth is the fact that at a certain point the amount of money transfers will begin to decrease.

During 2010-2016, the dynamics of the economic development of the Republic of Moldova was unstable, with an average growth rate about 3.5% per year. One of the main positive factors of growth is the transition of economic activity from low-productivity agricultural production to industrial and service industries with higher productivity. The dynamics of the workforce negatively affected the indicators of economic growth. Migration trends, formed during this period, determined a decrease of the activity index in the national economy from 60 to 44%. Effective labor, as one of the factors of the production function over the last decade, has been reduced by 2.7% per year [1].

Low labor productivity of workers and low quality of goods/services form a vicious circle, which soon determines the modest pay. Uncompetitive salary is another reason for the lack of attractiveness of enterprises.

This situation, combined with an unfavorable demographic prognosis and an unsatisfactory state of the well-being of the population, disproves the myth of a large number of skilled and cheap labor in the Republic of Moldova. As a result, a significant imbalance between supply and demand, as well as a shortage of skilled labor, will increase the labor market.

At these conditions, the development of local organizations for attraction of investments to Moldova, will contribute to the strengthening of the search for a workforce, both qualified and unskilled.

Nowadays there is formed a certain gap between changes in the management of the economy, established forms, strategic management and human resources. Deficit of human resources slows down the stable development of the organization and also blocks the implementation of government reforms and programs. The staff deficit is a brake for the development of the entire economy and for the development potential of the state.

For the Republic of Moldova as well as for any country in the modern world, human resources are the foundation for GDP growth, combining innovations with high technologies, their commercialization and bringing them to applied applications for the benefit of citizens.

CONCLUSIONS.

According to the examples of the history, achieving the leading positions in the world market and creation of favorable conditions for citizens became possible for those countries that made human resources the priority.

The strategic management of human resources is based on stimulating employment and its primarily goal is to accelerate economic improvement of country. The strategic management of human resources can be realized both with assistance of borrowed tools as well as with developed independently tools or adapted for their own economies.

The most important condition for improving the social and economic development of the Republic of Moldova is rational approach to the strategic management of human resources.

One of the conclusions is that, because of negative demographic processes and indicators, as well as because of changes in the model of economic growth in the Republic of Moldova (change of economic activity from the sphere of agricultural production to the sphere of industry and services) it is necessary to develop new approaches to strategic management of human resources. Use of modern approaches of strategic management by human resources will give chance to obtain a

synergistic effect, it will increase efficiency of economic activity, and also to promote the economic growth of the state.

REFERENCES

1. LAW of the Republic of Moldova «*On the approval of the National Development Strategy «Moldova – 2020»*» №166 от 11.07.2012 г. (Monitorul Oficial №. 245-247 from 30.11.2012).
2. ARMSTRONG M. *Strategy of human resources management*, Moscow, 2002.
3. VIHANSKIY O. S., NAUMOV A. I. *Management: Manual*. – 3-d edition. - Moscow.: Gardariki, 2000.
4. DAFT R. L. *Management*. – Saint-Petersburg.: Saint-Petersburg, 2000.
5. KIBANOV A. I., ESAULOVA I.A. *Managing Human Resources*, ИНФРА-М, 2013.
6. RADKIEVICH A. P., STAMATOVA T. B. *Human Resource Management*, Uhta, Ural State Technical University, 2014.
7. SHIHVERDIEV A.P. *Managing human capital as a factor in ensuring corporate security of enterprise*, Syktyvkar State University, 2012.
8. Periodic edition *BusinessClass*, Kishinau, November 2017.
9. Guide of Statistics *Moldova in figures*, National Bureau of Statistics of the Republic of Moldova, 2017.
10. www.staistica.md
11. www.anofm.md

THE ESSENCE OF SOCIAL MARKETING WITH APPLICATION IN THE FIELD OF HEALTH SERVICES

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Abstract. *Actuality Social marketing (including the one applied to healthcare) is frequently confused with social advertising, social media, corporate social responsibility, with societal marketing orientation, the marketing applied to non-profit sector, public relations and communication. Till now, only partially clarifications on this subject have been made.*

Aim *The aim of this paper is to identify the differences that exist between social marketing and similar areas or notions that are usually a source of confusion, in order to highlight its importance and "uniqueness", as well as its applicability to health.*

Materials and Methods *The research is interdisciplinary, applicative, descriptive, with a qualitative approach, based on logical-deductive reasoning. As a first step we have consulted the literature in order to define the listed notions. Subsequently, on the basis of the observations were analyzed the campaigns regarding the cardiovascular health promotion carried out by a public institution and a private institution from the Republic of Moldova in the 2014-2017 period, as well as the National Program for Prevention and Control of Cardiovascular Diseases for the years 2014-2020.*

Discussions *We present a model that illustrates not only the differences but also the connections between social marketing and the seven notions which it is confused with. According to the scheme, each component can be applied to the public health system, where is resent a necessity of social marketing campaigns developed and implemented at the national level.*

Key words: *social marketing, social advertising, social media, corporate social responsibility, societal marketing orientation, nonprofit marketing, public relations, communications.*

JEL CLASSIFICATION: M31, M14, I18

INTRODUCTION

Starting from the statement made in 1952 by G.D. Wiebe, "Why can not you sell brotherhood as a soap?", P. Kotler and G. Zaltman mention that the art of selling cigarettes, soap or steel can have an impact on the art of selling social causes. They propose a definition of social marketing, which describes it as a process that implies: "designing, implementing and controlling programs designed to influence the acceptability of social ideas, including considerations about product planning, pricing, marketing, distribution and marketing research". [1, p.5] Thus, in 1970, a new discipline was founded, and it investigates the influence of behaviors that will improve health, prevent damage, protect the environment, and enhance the financial well-being of communities. [2, p.7] Later, Andreasen comes up with some clarification on this subject: "I conceive of social marketing not as a theory or a unique set of techniques but as a process for developing social change programs that is modeled on processes used in private sector marketing. (...) As in the private sector, the ultimate objective should be behavior change". [3, p.7] On the application of the principles of commercial marketing in the social sphere is another definition (that expresses the same main idea) given by P. Kotler, N. R. Lee and M. Rothschild (2006) that says: "Social marketing is a process that applies marketing principles and techniques to create, communicate and deliver value in order to influence target audience behaviors that benefit society as well as target audience". [4, p.2]

We note that social marketing is a relatively new field, but has succeeded in raising the interest of marketing specialists and researchers. A special emphasis is placed on the similarities and differences between commercial and social marketing. For example, it is considered that "the primary responsibility of commercial marketers is to increase the company's wealth by increasing

individual's well-being, whereas the primary responsibility of social marketers is to increase individual and societal well-being". [2, p.16] However, in terms of the differences between social marketing and close areas or notions, only fragmented clarifications have been made. Thus, social marketing (including in healthcare) continues to be associated or confused with social advertising, social media, corporate social responsibility, societal marketing, nonprofit marketing as well as public relations and communication.

It is important to identify the "uniqueness" of social marketing in order to underline its applicability to health. This article aims to identify the differences that exist between social marketing and the notions with which it is confused, to find the relations of interdependence that exist between them and to analyze their application in health services.

MATERIALS AND METHODS

The research is an interdisciplinary, applicative and descriptive one (it discusses notions in the field of marketing, describing their application in health) with a qualitative approach, based on the logic-deductive reasoning (some representative examples are analyzed, which can be extrapolated for the entire sector).

As a first step the literature has been consulted for defining the listed notions. Subsequently, on the basis of the observations, were analyzed the campaigns regarding cardiovascular health promotion carried out by a public institution (*Nicolae Testemitanu* State University of Medicine and Pharmacy) and a private one from the Republic of Moldova (MedPark International Hospital) organized during the years 2014-2017. In order to identify the national social marketing programs in the field, the National Program for Prevention and Control of Cardiovascular Diseases for the years 2014-2020 was analyzed. In the absence of a national social marketing program, we described the *Heart Truth* campaign launched by the National Institute of Heart, Lung and Blood of the United States of America.

RESULTS AND DISCUSSIONS

Here are some explanations regarding the above discussed notions (social advertising, social media, corporate social responsibility, societal marketing, nonprofit marketing, public relations, communication), which reveal essential differences from the social marketing sphere.

Social advertising is a narrower concept and rather serves as an instrument in achieving social marketing goals which are more often attributed to programs rather than to campaigns. An important point underlined by Andreasen in support of this idea is that: "Social advertising is synonymous with campaigns. Campaigns have a fixed termination point, programs, by contrast, may last decades and contain several campaigns within them." [5, p.110] Thus, we notice that social campaigns for promotion can be included in social marketing programs, but campaigns can not replace social marketing programs.

Social advertising is, as a rule, the most visible part of a health promotion program and is attributable to marketing communication actions. Many times, in the health sector, campaigns are limited to TV spots and flyers, without pursuing an integrated concept for other elements of the social marketing mix that corresponds to the traditional one (product, price, promotion, placement).

Catherine Tucker presents a more different approach to social advertising, describing the paid social networking activity and involving user interactions. "This represents a radical technological development for advertisers, because it can potentially co-opt the power of an individual's social network to target advertising and engage their audience." [6] However, this approach is much closer to social media than to socially-based advertising that comes to inform or create certain attitudes towards a problem that concerns society.

"**Social media** leverage the social networks of target audiences, and are more personal and interactive forms of message delivery than are the traditional mass-media. (...) Social media are a subset of Communications." [2, p.19] As we can see, social media can be used to achieve social marketing goals but can not be equated with it. However, we have to emphasize the growing

importance of this tool for the modern consumer, for which social networks have become a channel of expression and as a result - a valuable source of feedback for institutions and organizations. Especially because "social media encompasses a wide range of online, word-of-mouth forums including blogs, company-sponsored discussion boards and chat rooms, consumer-to-consumer e-mail, consumer products or service rating websites and forums, discussion boards and forums, moblogs (sites containing digital audio, images, movies, and photos) and social networking websites". [7, p.358]

Lately, thanks to the development of the Internet, the social media is gaining ground in front of the traditional media, especially due to the fact that it guarantees accessibility and proximity to the consumer. Here, it is tested the creativity of marketers who try to get out of the crowd and attract consumers' attention through content that matches their interests, especially because social media channels allow audience targeting according to multiple criteria (age, gender, interests, location etc.) and obtaining feedback.

Corporate Social Responsibility, a notion met in the literature also as *corporate societal marketing*, involves the participation of the business sector organizations in supporting social causes and "encompasses marketing initiatives that have at least one noneconomic objective related to social welfare and use the resources of the company and/or one of its partners". [8, p. 164] Among the forms of corporate societal marketing are: philanthropy, sponsorship, publicity with a social dimension, volunteering, marketing related to a cause, and others. It is important to emphasize that "cause promotions primarily focus on efforts to raise awareness and concern for a social issue". [2, p.16] We support the idea that many authors subscribe to: "the concept of corporate social responsibility can be seen as a component of marketing policy through which the company aims to increase reputation and improve the image/brand in the given competitive context". [9, p. 68] In most cases, the link between a particular company and a CSR program is seen as adding insight to the business and generating greater acceptance from the public.

While we see that there are differences between CSR and social marketing, we should not ignore the support that private companies can offer through corporate social responsibility initiatives in implementing social marketing programs. Although, Andreasen says private sector involvement in social marketing is questionable, for example, when the insurance industry encourages the use of seat belts or the brewing industry promotes responsible consumption of alcohol. Referring to Rangun and Karim (1991), the author mentions that "such efforts should not fall within the domain of social marketing because social change is a secondary purpose of the campaign from the private sector firm's standpoint". [5, p.109]

In a broader acceptance, commonly accepted lately, Corporate Social Responsibility is a business philosophy that includes wider activities and principles than previously described. These statements erase the boundaries that appear to exist between the CSR and the societal marketing described below. However, without giving up this idea, it is important to point out that we will refer to Corporate Social Responsibility as a component of marketing policy that includes the planning and subsequent implementation of concrete actions within organizations or businesses.

The term of social marketing has originally been a source of confusion, especially with **societal marketing**. If social marketing involves social change, then societal marketing is concerned with regulatory issues and other efforts to protect the consumer of the *dark side of the market*, after Hirschman, and does not necessarily influence the target consumers in any way. [5, p. 109] The societal marketing orientation is the modern concept of commercial marketing, which involves the adoption of a proactive management that puts the interests of the consumer and the society in general at the forefront by offering added value. It questions whether the pure marketing concept overlooks possible conflicts between consumer short-term wants and consumer long-term welfare. [10, p. 35] According to P. Kotler and K.L. Keller, there is a definition of marketing that illustrates the role it plays in society: „*Marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with others.*” [11, p.5] Thus, marketers in the commercial sphere should adopt

a societal vision, and this does not necessarily imply the support of certain social causes, but it implies offering products and services that do not harm, and rather on the contrary contribute to the well-being of both the person and the society he lives in. It has been a long historical way till this stage, according to the development of the marketing concept, starting from the production orientation, to sales, then marketing orientation, and now - to societal marketing. One key element to underline here is that societal marketing implies an "orientation" that is found in the organization's *way of being*, while social marketing involves a concrete program and a set of predetermined actions.

Marketing applied in the non-profit sector is also associated with social marketing. Usually confusions arise because "Social marketing efforts are most often initiated and sponsored by those in the public and nonprofit sector." [2, p. 16] However, these efforts are only a part of the many activities carried out by this type of organizations. A marketing department within nonprofit institutions will focus on program development, fundraising, advocacy and other similar actions, as well as encouraging consumers to use their products and services. "Non-profit organizations have started to adopt business-like techniques (Goerke, 2003) used in the for-profit sector as they are increasingly confronted with market pressures typical of for-profit organizations, such as competition for funding and the need to earn." [12] Neither for the health services sector in the Republic of Moldova the practice of non-profit marketing is no longer a novelty, however the concept is not fully understood and used. Some healthcare institutions try to meet the needs and requirements of their patients, from time to time they conduct research on the level of consumer satisfaction and try to use promotion methods, at least some free ones such as public relations. However, limited resources (financial, human or informational - esp. the knowledge level) continue to be a major impediment to the proper application of nonprofit marketing.

Public relations is a process that "involves research and analysis, the creation of diverse policies, programming activities, communication, and feedback from many publics" [13, p.3], all of which are developed to build favorable relationships and to attract goodwill to the organization. Referring to public relations and publicity, Kotler and Keller point out that it is "a variety of programs directed internally to employees of the company or externally to consumers, other firms, the government, and media to promote or protect a company's image or its individual product communications". [11, p.478]

Although public relations has developed as a separate domain, much closer to journalism, including in the academic environment - we will analyze the notion through the communication mix in which PR is included and which contributes to the achievement of marketing objectives. Healthcare institutions have begun to become aware of the importance of public relations for maintaining a favorable image and try to take advantage in particular of the mass media communication - by appointing a spokesperson, by providing interviews, giving statements and organizing flash-mobs. At the same time, there are situations in which a specialized public relations department assumes a large part of the marketing activities, usually because of the organizational structure of the institution, such as the case of *Nicolae Testemitanu* State University of Medicine and Pharmacy. Here the PR team develops promotional activities (including promotional materials, booklets and informational flyers).

Communication is a bidirectional process of reaching mutual understanding, whereby participants not only exchange information, news, ideas and feelings, but also create and share value. In business, communication is a key function of management. [14]

In addition to this broad explanation of communication, we also need to consider a more narrow one, which refers to marketing communication. In this regard, William F. Arens has the following definition: "Marketing communications typically refers to all the *planned messages* that companies and organizations create and disseminate to support their marketing objectives. In addition to advertising, major marketing communication tools include *personal selling, sales promotion, public relations activities, and collateral materials.*" [15, p.26] Of course,

communication plays a key role in transmitting social marketing messages, but as Nancy R. Lee and Philip Kotler mention: "communication itself is not enough to influence behaviors". [2, p. 19]

Social marketing is often seen only as a method of designing communication campaigns, an aspect highlighted in an article by Sonya Grier and Carol A. Bryant: "Whatever the reason, the disproportionate amount of attention given to promotional activities has created the misconception that social marketing relies primarily on advertising to achieve its goals." [16, p.330] As a solution, is proposed the awareness and fruition of all components of the marketing mix, without relying solely on *the magic of advertising messages*.

In order to compare the above-mentioned concepts, they should be brought to a common denominator, which is why we have described them according to four criteria: *essence*, *objective*, *actions* and *purpose*. Thus, social marketing is in *essence* a process that applies marketing principles and techniques to change behavior (*objective*). In order to achieve this, social marketing involves *actions* like developing social change programs, and as a *finality* it aims at increasing individual and collective welfare. On the other hand, social advertising is in *essence* just a tool for social marketing, that has as an *objective* - informing or convincing the audience about a particular subject. It assumes campaign development *actions* that have the *finality* of promoting messages or behaviors. Social media is in *essence* an instrument of communication, used for a main *objective* - promoting products, services or behaviors, by implementing the *action* of spreading messages in a personalized and interactive way, in order to get closer to the consumer and obtain feedback (finality). Similar are presented the other notions in the Table 1.

Table 1

| | ESSENCE | OBJECTIVES | ACTIONS | FINALITY |
|---------------------------|--|---|---|---|
| Social Marketing | Process that applies MK principles and techniques | Behavior change | Developing social change programs | Increasing personal and collective wellbeing |
| Social Advertising | Social MK instrument | Informing or persuading | Developing campaigns | Promoting messages or behaviors |
| Social Media | Instrument of communication | Promoting products/services/behaviors | Spreading messages in a personalized and interactive manner | Getting closer to the consumer and obtaining feedback |
| CSR | Element of the MK policy | Supporting social causes and increasing awareness | Philanthropy, sponsorship, volunteering etc. | Improving organizational image |
| Societal MK | The modern concept of commercial MK | Protecting the consumer | Applying the MK philosophy to the entire business | Offering products and services which do not harm |
| Non-profit MK | Offering products and services (which do not harm) | Meeting the needs of target groups | Developing programs and services | Providing services tailored to the needs of consumers |
| Public Relations | Element of the promotional mix | Building favorable relationship | Researching and developing communication programs | Gaining acceptance of the organization |
| Communication | Management function | Information interchange. Building relationships | Creating and delivering messages | Supporting MK activities |

Comparing the notions with which social marketing is confused according to the essence, objectives, actions and finality

The illustration of the relationships that exist between social marketing and the concepts described above with which it is associated and/or confused is shown in the Figure 1. Thus, if we classify marketing into three categories: *commercial* (applied by commercial institutions, aiming at profitability), *social* (initiated by public institutions/organizations to generate change of behavior of individuals for their well-being and for the entire society) and *non-profit* (institutions/organizations providing public services, not profit-oriented) we can see that between them there exist some connections. These are expressed by the influences and the support offered by the businesses in the private sector and the public institutions in the implementation of social marketing programs. Societal marketing orientation refers to the commercial and nonprofit sector and should be applied in their activity by offering products and services that bring benefits both to the consumers and to the entire society. Regarding marketing communication (including in our case: social advertising, social media, public relations and corporate social responsibility), this is applicable in all three areas: commercial, social and nonprofit, and must be used depending on the goals and the target audience. However, CSR is specific to companies in the private sector, while social advertising is much more appropriate for institutions that carry out social marketing activities, while public relations and social media can be used with confidence in all three areas.

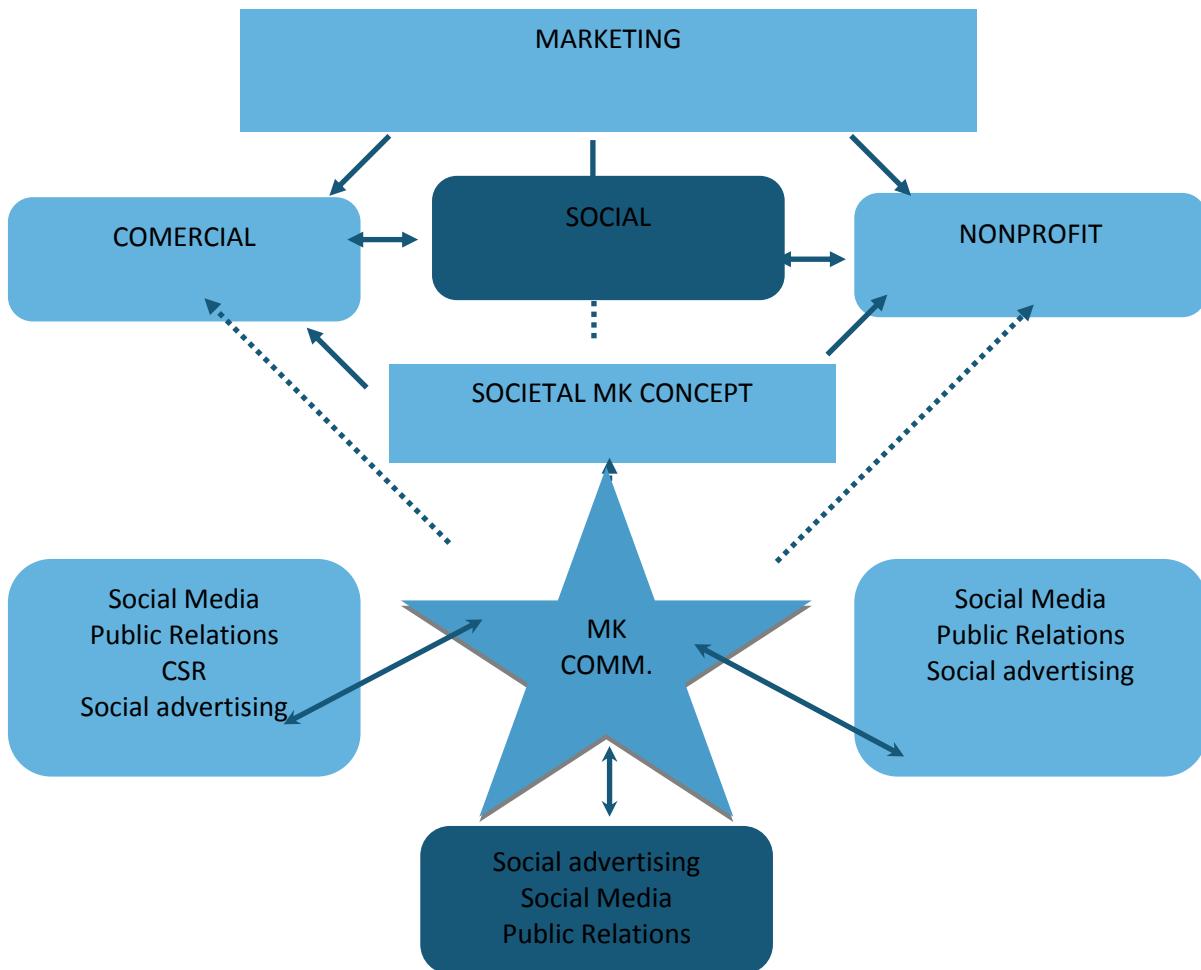


Figure 1: The connections between social marketing and the definitions it is associated/confused with

Source: Developed by the authors based on the data analyzed in the article

In order to explain the scheme outlined above we identified three actors: the Ministry of Health, Labour and Social Protection of the Republic of Moldova, which has to be the main initiator of some health social marketing campaigns in the country; Nicolae Testemitanu State University of Medicine and Pharmacy of the Republic of Moldova, which would serve as an example of the

application of non-profit marketing; MedPark International Hospital (the first and the largest private multidisciplinary hospital in the country) will represent the commercial sector.

In 2014, on World Heart Day, marked on September 29, *Nicolae Testemitanu SUMPh* launched the *March of Heart* campaign. "The purpose of the action was to draw public attention to the importance of heart disease prevention and to encourage people to adopt a healthy lifestyle, in particular - to walk and consume as much fruit as possible to reduce the risk of heart disease." [17] Through the available communication channels (the university information portal www.usmf.md, the institution's Facebook page, posters) the students were encouraged to participate in the march, by walking the distance from the Central University Building to the Central Cathedral Square, where young people formed a heart and launched 50 balloons with the message "A healthy heart for life!". The event was attended by more than 150 students, who distributed over 400 informative leaflets on heart health and offered by an apple to the passers-by (about 20 kg in total). This campaign example is part of the institution's public relations actions because, in addition to promoting healthy lifestyles and heart health, it was intended to promote the image of the university, including generating free media coverage. As a result, the event was covered by 7 TV stations, 4 radio stations, 3 news agencies and 16 news portals. [18] The campaign was also organized in the form of a march in 2015, when the destination was the park named *Valea Morilor*, and in 2016 the passers-by were encouraged to play hopscotch in front of University's Central Building in order to maintain their heart healthy and young. In 2017, on the World Heart Day, the medical students shared red bookmarks with the message *Share the Power!* and informed university students and employees about the heart health. We see a continuity of an action, but the goal remains the same: informing and promoting the image of the university. The example examined presents an institution that practices non-profit marketing and has used public relations and social media (ie communication activities) to achieve certain goals.

In 2014, Medpark also initiated an information campaign entitled "Help us Protect Your Heart!" based on informing people about the risks caused by late detected cardiovascular diseases and the importance of periodic cardiac investigations. In addition, the campaign comes to inform the public about the advanced cardiological services provided here. In 2015, in the context of the campaign, during Medpark's heart week were offered 50% discounts to the cardiologist consultation and free cardiac electrocardiography. Information sessions, seminars, blood donations, flash-mobs - were just a few of the activities organized. This is not the only campaign of this kind, the social responsibility of the Medpark International Hospital is also manifested by: "investments in the health sector, directly contributing to the increase of the quality and safety standards; investment in training of physicians; investments in population informing campaigns on various health issues, contributing to the increase of medical education; investing in sports activities, promoting healthy lifestyles; support for disadvantaged families in the Republic of Moldova." [19] We see an example of a company that applies the commercial marketing of societal orientation and uses extensive marketing communication (including social media, public relations and CSR).

The campaigns run by *Nicolae Testemitanu SUMPh* and those implemented by MedPark can not be considered as social marketing programs, but they are health promotion campaigns that help to inform and raise awareness about heart health, an important topic for our country. According to statistics, cardiovascular diseases are the main cause of death among the population of the Republic of Moldova, accounting for 59% of the total deaths. The most important risk factors among adults are: high blood pressure (40%), smoking (24%) and obesity (21%). [20] This confirms the necessity of a national social marketing program to generate a change in the behavior of the population related to the health of the heart. If the Ministry of Health were to launch such a program, which would be aimed at changing a certain behavior (regular exercise, adopting a healthy diet, annual health investigation, etc.), it would be based on research on the target group and would include messages to illustrate that the benefit in return (heart health) is greater than the effort (giving up consumption of fat-rich foods or smoking) - then it could be attributed to social marketing. As Andreasen argues, "what makes social marketing potentially unique is that it (1) holds behavior change as its *bottom line*, (2) therefore is

fanatically customer-driven, and (3) emphasizes creating attractive exchanges that encourage behavior (the benefits are so compelling and the costs so minimal that everyone will comply)". [2, p. 7] A social marketing program should be included in a wider national program, such as the National Program for the Prevention and Control of Cardiovascular Diseases for the years 2014-2020, which aims to reduce cardiovascular mortality by 10% in 2020. It aims to reduce the risk of cardiovascular disease and increase its early detection rate; modernizing methods of specialized diagnosis and treatment; the development of vascular and valvular interventional cardiology, a component part of highly specialized care; optimizing the diagnosis and treatment of cardiac arrhythmias; strengthening and developing the cardiovascular surgery service for the provision of specialized medical assistance to children and adults; creating cardiovascular rehabilitation services at the hospital, outpatient and at home level, secondary, tertiary and palliative care; optimizing postgraduate training programs, training professionals in cardiology, and prioritizing scientific research [21]. However, the project does not envisage specific actions aimed at generating behavioral change among the population, an extremely important element, especially because as according to the World Health Organization about 80% of cardiovascular disease could be prevented [22] by adopting a healthy diet and making physical exercises.

An example of a national heart health program is *The Heart Truth*, launched in 2002 by the National Institute of Heart, Lung and Blood of the United States of America, which aims to raise awareness among women about their risk of heart disease. A traditional social marketing approach has been used, which included a formative research (during half a year), the results of which were used in planning, implementing and evaluating the campaign. The campaign has embedded a red dress branding strategy that has been chosen as a national symbol and has succeeded in creating a strong emotional bond with women. The power of the Red Dress concept has helped stimulate an extremely important partnership with the fashion industry. The implementation of the campaign implied a three-steps strategy: the development of partnerships, media relations and community action. Thus, some corporations sponsored community events, and nonprofit partners launched training initiatives. In 2011, the total cost of the campaign contracts have reached \$ 17.7 million for 10 years. These costs do not reflect the considerable in-kind and monetary support from corporate, government, and non-profit partners, as discussed above. [23]

CONCLUSIONS

After the analysis carried in this article we can conclude that social marketing is different from social advertising, social media, corporate social responsibility, societal marketing orientation, marketing applied in the non-profit sphere, public relations and communication. However, each of these elements is supportive for the behavioral change efforts undertaken in the context of social marketing programs. This was exemplified by heart health promoting campaigns initiated by the private, non-profit and public sector. Thus, national programs that aim changing the population's behavior on long-term will be supported by commercial and non-profit initiatives that will help to strengthen the message, even if they have a shorter-time impact. The American example of partnership-building can be followed for sharing resources available in the three sectors.

Because in the Republic of Moldova cardiovascular diseases are the main cause of death among the population, a social marketing program should be undertaken at national level, oriented towards changing behavior, especially in terms of adopting a healthy diet and an active lifestyle. Such a program could be included in a wider national program, such as the National Program for Prevention and Control of Cardiovascular Diseases for 2014-2020.

REFERENCES:

1. KOTLER, P., ZALTMAN G. *Social Marketing: An approach to planned social change*. Journal of Marketing, Vol. 35, July 1971, pp. 3-12
2. LEE, N.R., KOTLER, P., *Social Marketing: Influencing Behaviors for Good*. SAGE, 2011, 520 p.
3. ANDREASEN, A.R. *Marketing Social Marketing in the Social Change Marketplace*. Journal of Public Policy & Marketing: Spring 2002, Vol. 21, No. 1, pp. 3-13

4. CHENG, H., KOTLER, P., LEE N. R. *Social Marketing for Public Health. Global Trends and Success Stories*. Sudbury, Mass.: Jones and Barlett Publishers, 2011, 422 p.
 5. ANDREASEN, A.R. *Social Marketing: Its Definition and Domain*. Journal of Public Policy & Marketing Vol. 13 (I), Spring 1994, pp. 108-114
 6. TUCKER, C. E., *Social Advertising: How Advertising that Explicitly Promotes Social Influence Can Backfire*. June 01, 2016. Available at SSRN: <https://ssrn.com/abstract=1975897> or <http://dx.doi.org/10.2139/ssrn.1975897>
 7. MANGOLD, W. G., FAULDS, D. J. *Social media: The new hybrid element of the promotion mix*. Business Horizons, 2009, 52, pp. 357—365
 8. DRUMWRIGHT, M., MURPHY, P. E. *Corporate Societal Marketing* in BLOOM, P. N. and GUNDLACH, G. T. eds., *Handbook of Marketing and Society*. Thousand Oaks, CA: Sage, 2001, 570 p.
 9. HRISTEA, A.M. *Responsabilitatea socială corporativă – între deziderat și realitate*. Economie teoretică și aplicată, Vol. XVIII, 2011, No. 10(563), pp. 56-73
 10. KOTLER, P., ARMSTRONG, G. *Principles of marketing, Thirteen Edition*. Pearson Education, 2010, 637 p.
 11. KOTLER, P., KELLER, K.L. *Marketing management*. Upper Saddle River, N.J.: Prentice Hall, 2012, 816 p.
 12. DOLNICAR, S., LAZAREVSKI, K. *Marketing in non-profit organizations: an international perspective*. International Marketing Review, 2009, 26 (3), pp. 275-291. Available at: <https://pdfs.semanticscholar.org/4fb6/c7c302af04066d78ae380687a2fc4e15d43c.pdf>
 13. WILCOX, D.L., CAMERON, G.T., AULT P.H., AGEE, W.K. *Relații publice: strategii și tactici*, București: Curtea Veche Publishing, 2009, 624 p.
 14. Communication definition <http://www.businessdictionary.com/definition/communication.html>
 15. ARENS, W.F., WEIGOLD, M.F., ARENS, C. *Contemporary Advertising & Integrated Marketing Communications*, 14/e, 2013, 722 p.
 16. GRIER, S., BRYANT, C.A. *Social marketing in public health*. Annual Review of Public Health Vol. 26, 21 April 2005, pp. 319-339
 17. DEPARTAMENTUL COMUNICARE ȘI RELAȚII PUBLICE, USMF „Nicolae Testemițanu”, *Campanie de relații publice: Marșul pentru Inimă, 29 septembrie 2014*. Disponibil la: <http://relatiipublice.usmf.md/wp-content/blogs.dir/147/files/sites/147/2014/06/5.-CRP-Marsul-pentru-Inima.pdf>
 18. DEPARTAMENTUL COMUNICARE ȘI RELAȚII PUBLICE, USMF Nicolae Testemițanu, *Revista presei nr. 14 din 01.10.2014*. Disponibil la: <http://relatiipublice.usmf.md/wp-content/blogs.dir/147/files/sites/147/2013/09/Revista-Presei-nr.-14-din-01.10.2014-Marșul-pentru-Inimă1.pdf>
 19. <http://medpark.md/ro/proiecte-sociale>
 20. WORLD HEALTH ORGANIZATION - Noncommunicable Diseases (NCD) Country Profiles, 2014. Available at: http://www.who.int/nmh/countries/mda_en.pdf?ua=1
 21. Hotărârea Guvernului RM nr. 300 din 24.04.2014 cu privire la aprobatarea Programului național de prevenire și control al bolilor cardiovasculare pentru anii 2014-2020. Available at: <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=352739>
 22. http://www.who.int/chp/chronic_disease_report/part1/en/index11.html
- LONG, T., TAUBENHEIM, A., WAYMAN, J., TEMPLE, S., RUOFF, B. “*The Heart Truth*”: Using the Power of Branding and Social Marketing to Increase Awareness of Heart Disease in Women, Soc Mar Q. 2008 Mar; 14(3), pp. 3–29. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2574437/#R3>

CONSCIOUS CHOICES AND DECISIONS

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Abstract. Our life represents all our choices we make, both consciously and unconsciously. If we are able to control our choices, we are able to control every aspect of our life. We are able to discover the freedom. Each of us is making a lot of choices daily. Some of them are of little importance, others could produce major changes. Some choices are easier to be made, others – more difficult. Some will lead us to success directly while others will bring us failure. Some are important, others are minor. Each choice, whether it is important or not, easy or difficult, changes the trend of life. The quality of our choices determines whether we will live an extraordinary life.

We should change ourselves first if we want the things to change. The development of the capacity to make decisions requires work. We should listen to our own feelings when evaluating the actions and the results. We should be ready to undertake responsibilities, to work hard on the activities we have chosen. Based on these considerations, I have decided to do a research on this subject. Personal progress helps us when life disappoints. Failures are part of our life and we can overcome them only through personal development. The main methods of the research were the theoretical analysis of scientific literature and the study of the best practices of personal development.

Key words: motivation, freedom, decisions, behavior, choices, thinking, development, evolution.

JEL CLASSIFICATION: Z1

INTRODUCTION

With courage, we can ensure happiness and joy by our will. Information, principles and self-control help us to visualize what we want, what we need from life. We must enjoy every drop of happiness and then life will flow freely and unhindered, bringing us satisfaction. We have to rely on ourselves and to take the most we can from life.

Every action could be made only subject to our desire to make it. Actions and decisional power have their roots in our fundamental desires. It is important to think about ourselves, our merits and desires. We have to think over our scopes and aspirations. We can accomplish our projects through thinking and avoiding the rush.

Material and method.

Our ability to make choices involves rights and freedom. If we can choose, then we can determine what decisions we make about our relationships, career, social life and spiritual beliefs. The option allows us to choose, to select and decide on the possible paths to follow. To go to the right or to the left. To go forth or go back, to be happy or sad, to love or hate, to be satisfied or unsatisfied. The choice gives us the power to be successful, to be good. We can work or relax, make economies or spendings, we can be responsible for our deeds or can be not. We can follow a path that reflects our higher self, or one that reflects our inferior self, we are the ones who decide. [1]

Certainly each of us has felt, at least once in life, the feeling that blocks us prior to take an important decision. The change to be brought by making a decision is scaring though it has appeared because the situation does not fit us. At one point, our decisions have determined the way we live, people we associate with, the professions we prepare for, the books we read or the principles we follow. We make choices permanently, consciously or unconsciously. If our choice, maybe unconsciously made, has had positive consequences, we are inspired. If the choice made unconsciously does not satisfy us, we should become conscious, to be able to make decisions with the sense of responsibility. [2]

Sometimes decisions depend on the neurophysiological state we are in. There are states that stimulate, such as trust, love, inner living, joy, they unleash personal power. However, there are also states that block, such as confusion, fear, anxiety, frustration, all these consume power. Understanding the state is the secret of understanding the change. Our behavior is the result of the state we are in. It influences our decisions. Sometimes we make a step that activates all our

available resources, another time we rely on the state we are in at the moment, so we can do or say things to be sorry about later. It is good to remember these feelings. The secret is to keep our own emotions, behaviors and decisions under control. In order to acquire power it is necessary to proceed to concrete actions and decisions.

A state can be defined as the totality of neurological processes, the totality of experiences at a certain moment of time. Most of these states happen without conscious control. We react and decide something being in a particular state. It could be a full-fledged and useful state or a non-oriented and a limited one, but many of us do not even try to control it. The difference between those who succeed and those who fail in achieving their goals is the difference between those who can enter into a state that supports their goals and those who cannot. People aspire for a particular state that would help develop the ability to lead their own lives, and to make correct decisions. [3]

Everybody is born to succeed and to have a high level of self-esteem and personal pride. Everybody is extraordinary, there is no one similar. Everybody has unexplored talents and abilities, absolutely amazing, which if unleashed and put into practice could bring everything we want in life. We are surrounded by numerous opportunities that we can use to fulfil our dreams. The only real limits to what we can be are those that we set through our way of thinking. Sometimes we feel trapped by great ideas from one side and limited decisions and opportunities from another. The outer world is mainly a mirroring of the inner universe. What happens outside is a reflection of what is happening inside, the outcome of some decisions.

The mind is extraordinary strong. Thoughts control and determine almost everything that happens. Thoughts give us the power to take responsibility and to decide. What we see and what we live determines our attitudes and actions. Actions have consequences and results that influence future events. If we think we have the confidence and the power to decide what we are doing, we will have good results in everything. In case we think we could be wrong or could fail, we will get poor results no matter how good we are in reality. [4]

The birth of a burning desire to accomplish a great goal is the starting point of every achievement. When someone can direct his thoughts, control his emotions, he makes the first step to order his life. We could achieve what we want subject to permanently examining what we want. As a result, the daily tracking of progress towards achievement, the use of unlimited power of the mind, lead to the desired reality.

The power of the mind is the power that brings success. Thoughts are things, powerful things, when combined with well-determined scopes and decisions. It is important to have clear thoughts and ideas in order to succeed. Who is not able to control the mind fails to control everything else. The mind is a spiritual treasure. Mental control is the result of self discipline and habit. The most practical method to control the mind is the habit to keep it active through a well-defined scope. One of the biggest weaknesses of the mankind is the frequency the word “impossible” is used. This word knows all the rules that are not working and all the things that could not be done. Success is achieved by those who are conscious about this fact, by those who undertake responsibility to decide.

One of the most frequent causes of failure is the habit to give up when the feeling of a temporary defeat occurs, when it is clear that it is the result of our own actions and decision. We have to learn the art of changing the spiritual structure and obtaining the awareness of success instead of awareness of failure. [5]

John C. Maxwell speaks about potential as one of the most wonderful words, regardless of language. It is full of hope. It promises success. It involves fulfilment. This word directs us towards possibilities. In order to obtain the maximal potential it is necessary to develop. But, in order to develop it is necessary to set this as a goal. It is necessary to improve the skills in order to advance.

Every person who wants to develop and make correct choices but does not sufficiently know about himself will hardly achieve the goals. We should know exactly how we are, what our strengths and weaknesses are, what interests and opportunities do we have. We should know not only the stages we have passed, but also where we are right now. Otherwise it is impossible to define the direction we would like to follow. In order to learn something new we need to be able to

use the learnings we already have. Without this we risk to be lost somewhere on the way of self-development. Confused people, that have no clear scopes and no life direction, take decisions randomly. They cannot make correct decisions, as they even do not know what they intend to do.

Frustrated people feel the difference between where they are and where they want to be. Sometimes they do not do what they want because they are afraid they may make a wrong decision. Fear prevents from choosing the correct direction, the desired direction, thus own potential is missed. Those who know themselves well, who know their passions, who concentrate on their own scopes, who develop in the fields that help them to get closer to personal dreams, do the things they are meant to do. These people are characterized by the word fulfillment. [6]

Rollo May, an American scientist of exceptional value, author of multiple well-known books, has fought for a rapprochement between existentialist philosophy and existential psychology, laying the foundation of a new psychotherapeutic method called Existential Psychotherapy. He worked on promoting humanistic oriented psychology. He said that man, when is completely absorbed or trapped by something, forgets everything that surrounds him. Such a state of absorption makes the subconscious free and unleashes creative imagination. He starts from what he considers to be the four essential human worries: death, freedom, existential isolation and the lack of sense of life. All these fundamental entities generate major conflicts, in which the subjects do not know how to react. These inappropriate reactions result in the terrible suffering called unhappiness.

In the book "The Discovery of Being" Rollo May puts the foundation for a very interesting psychologic concepts at the crossroads with the existentialist philosophy, but with traditional literal and metaphysical influences. These concepts are: freedom, transcendence, potentiality and self-awareness. He underlines the fact that the society we are living in today, has amplified insecurity and culpability of the individual. These false experiences, propagandistically induced from the outside, increase the inability to live fully. Naturally, the proposed solution is an individual one, based on the reflections over existential causes. To make sense and efficiency, we should analyze practical solutions and courage. Courage is not a virtue or a value among other personal values such as love or fidelity. Courage is the foundation of all other virtues and personal values and only courage can make them real. It helps us to express ideas, if we do not listen to ourselves we will betray ourselves. More courage is needed to preserve our inner freedom an advance on our inner journey to new shores. It is often easier to look than to hurry in the battle. [7]

One of the approaches of intelligence refers to the ability to adapt to the environment, but also to change it according to the individual's needs. It examines the relation of intelligence with external environment, being directed towards behavioral purposes. Adapting to the environment supposes the use of intelligence to achieve this goal. The information processing components are universal, operating in the same way for individuals from a culture as for those of all other cultures. Intelligence is not a simple aptitude, it can be part of behavioral aspects that determine achieving success in life. Intelligence helps us to learn, organize, recognize and control emotions. And mastering emotions leads to understanding all the aspects of life. [8]

RESULTS AND DISCUSSIONS

Robert Marzano, a respected researcher in the field of education, considers that cognitive processes allow us to use the accumulated knowledge. He calls these processes the use of knowledge. These processes of the use of knowledge are very important components of thinking in the context of learning, as they include those processes that are used when we want to perform a specific task.

The cognitive process of decision making involves a "weighting" of options to determine the appropriate action to follow. The most important stage in the decision-making process is the identification of alternatives. We often do not take into account all possible alternatives when we want to make a decision. We think over two possible options without considering that the third, the fourth or even more could be possible. Important decisions are rarely simple, and the best alternative could appear after careful deliberation.

Brainstorming is a technique to generate a large number of alternatives for decision-making. Once a group of alternatives has been identified, decision-makers have to weigh the advantages and disadvantages of each to make the right choice. Knowledge plays an important role at this stage of decision-making process. Having complete information is essential to take good decisions. People often focus only on short-term consequences and may not consider the consequences their choices will have on others. As well, it is usual for us that we stick on a decision we consider reasonable and do not consider other decisions that could turn out to be better. An efficient training to take decisions involves the identification of a capability that will be focused on during the learning period or during the stage of a project. There could be many suitable capabilities, but the focus on one will bring better results. It is advisable to determine a list of questions when working over taking a decision. To elaborate some graphics that will better direct the activity, describing strategies to be used in the process of decision-making.

Robert Mazano describes the steps towards a good decision:

1. Think of as many possible alternatives as possible;
2. Think about good and bad points of each alternative;
3. Consider the probability of success of the best alternatives;
4. Choose the best alternative based on its value and its probability of success. [9]

When facing the decision making process, we can consider the following tips:

- Sometimes it is advisable to gather more information regarding the situation we are facing. Gathering more data, analyzing it, we can organize it in a clearer structure. It is important to know the situation as well as possible prior to listening to the instincts. [10]
- The capability to make decisions should be educated in a conscious way, being developed according to a suitable model. One of the path to follow is the pre-decision phase (diagnosis and prognosis prepare the ground for all factors involved in the moment of decision to be known and clearly-stipulated) [11]
- We need to talk to people that have made similar decisions. We can talk to close people who can sincerely describe the way they have chosen. There is no similar experience, but we can learn from what we hear.
- We can examine different results that we would not have thought possible. In such way, we could predict future potential situations more precisely.
- People tend to look more positively at a decision already made. This type of dissonance is a phenomenon that prevents us from recognizing or discovering that we have made a mistake.
- In the process of decision-making, we are influenced by external factors such as views and wishes of loved ones, by factors that bring us more prestige, or by the opinions of those around us. We should ask ourselves what our choice would be if we care only about ourselves. We have to try a scenario in which nobody cares about our decisions. In this way we find intrinsic objectives, and the decision will be made subject to our wish and not others' dictate.
- Sometimes we undertake huge risks to create the life we want. But to hesitate making a decision due to fear means to reduce the options and never explore the possibilities. Fear can protect us from danger, but we have to know how to control it. Especially, when speaking about major decisions.
- Very often we concentrate only on known options, without exploring possible alternatives. We have to permanently examine what the alternatives are and what could be the solutions we have not thought about.
- Complex decisions become stressful when we imagine there is only one "right" choice and we need to identify it. The truth is that every decision could bring advantages and disadvantages. Whatever we choose we could face a certain degree of disappointment. But this does not mean that we have made the wrong decision. [10]
- We could write on a paper all the ideas so we can make the first selection. We eliminate ideas/solutions with high costs and small benefits, or those with other damaging effect on

other aspects. Two or three more attractive solutions are chosen (with low material of psychological costs, objectives are met in a shorter time, or the scope achievement is more secure). [11]

- We often take decisions differently depending on our mood. To avoid such influence, we can make an exercise: imagine for a few days that we have already taken the decision. This strategy helps us to understand how we are doing with this decision. [10]

In order to make the best decisions, each of us should know himself and should have a certain level of intelligence. When we speak about making a decision, we refer to a conclusion that we make based on some life experience. "That who knows how to take a decision masters an art. The decisions we make represent a very important component in the life of each of us, and if we truly know how to make them we could say that we live a conscious life", explains psychologist Stelian Chivu.

Few of us realize that every day they make hundreds of decisions, conscious and unconscious. If the majority is conscious this shows the decision power of that person, but if they are unconscious that means that the person is, usually, controlled or manipulated. The factors our decisions are based on could be positive and they become over time principles of life: integrity, courage, undertaking responsibility, generosity, forgiveness. Equally, the factors could be negative (betrayal, partisanship, hypocrisy, arrogance), and our life could take a very unpleasant slope.

Whether it is about taking a decision on the spot or one that we have time to think about, it is essential to free our mind from the pressure brought by its taking that means influences from our interior as well as from our exterior. [12]

People take decisions subject to options they have. If they have no options, they take no decisions. But if they have more than one option, they should make a choice. Even not taking any decisions is already a decision.

Some decisions are more important than others are. The importance of a decision is related to two things:

1. What the consequences of those decisions will be;
2. What people or what things this decision implies.

The decision could be a simple choice between yes and no. At the upper limit, the set may contain an infinity of solutions that could be hardly embraced by human mind. Making a decision does not mean taking an action, but only determination of respective action. Decision taking is examined by some authors as commitment to an action, but this commitment is not a must. Decision taking process refers to one or more decisions that are taken in a certain context with the aim to solve a problem.

CONCLUSIONS

As a complex psychological phenomenon, the decision has a double nature: first it is an individual psychological phenomenon (individual decisions) and secondly, it is a psycho-social phenomenon (collective decisions). Individual decisions are tightly connected to the personality traits of each person. They direct the person towards a certain type of decisional behavior and this is why if knowing personal traits of a person is possible to determine his decisional behavior.

The right to choose means freedom. The ability to choose means the possibility to create a future full of accomplished dreams and wishes. The choice offers hope, a free life to think and create. If we want to understand how we managed to create the present, we have to look at the decisions taken in the past. The examination of actual conditions will show us that we are where we are as a result of the decisions taken yesterday, the day before yesterday and the day before. As well, if we want to see how our life will be in the future, we have to examine the choices we are making today. Maybe we have never thought about our life in such a way. But, it is for sure that future depends on decisions taken by us, maybe at this very moment.

If we want our lives to be different, all we need to do is to make other choices. Most of us continue to make same choices based on habit, comfort, fear or laziness, and then we wonder why we do not get different results. [1]

Often the decisions we take right now will determine how we will feel tomorrow and what will become our life in the future. Benjamin Disraelis said: "Man is not a creature of circumstances, but circumstances are the creations of man".

Taking a correct decision is always necessary to be consistent with our wishes and our expectations from life. Adopting such a decision could transform our whole life as it will show the direction for our actions, the way we would like to follow. For sure we can transform our life when taking a conscious decision.

The quality of our life is the sum of all our decisions. Choices influence our behavior and actions. Each choice either fuels our interior flame or sprinkles it with water, diminishing its force. If we want to be bright, if we want to express ourselves in an authentic way and if we want our force to promote our scopes in the world, we should have the main task to maintain our internal flame – our vital force – burning.

There are no clear or universal formulas to help us in taking decisions and ensure their success. If we have taken a good decision we should enjoy it and the success it brings, and if not, we should learn from experience and move forward.

BIBLIOGRAPHY:

1. <https://drumuricatrette.wordpress.com/2012/08/16/viata-ta-suma-alegerilor-facute-pana-in-prezent>, vizualizat la 15 martie 2018
2. <http://www.psychologies.ro/cunoaste-te/cum-sa-facem-cele-mai-potrivite-alegeri-2141203>, vizualizat la 15 martie 2018
3. Anthony Robbins. "Puterea nemărginită: știința dezvoltării personale". București 2002. Editura AMALTEA. Traducere: Mihaela Mazilu. ISBN 973-9397-16-6
4. Brian Tracy. "Schimbând gândirea, îți schimbi viața". traci.: Bucuresti 2006. Editura Curtea Veche Publishing. Traducere: Angelica-Raluca Caliman. ISBN (10) 973-669-255-8 ISBN (13) 978-973-669-255-0
5. Napoleon Hill."Secretul libertății. Diavolul păcăli". Bucure ști 2012. Ed. Adnotată: Sharon Lechter. Traducere: Paul Mihalache. Bucure ști: Curtea Veche Publishing, 2012. ISBN 978-606-588-238-6
6. John C. Maxwell."Cele 15 legi supreme ale dezvoltării personale. Pune-le în practică pentru a-ți atinge potențialul maxim". Editura Iuliana Enavhe. Bucure ști, Amaltea, 2013.Traducere: Mihaela Barbă. ISBN 978-973-162-110-4
7. Rollo May. "Descoperirea ființei. Fundamentele analizei existențiale. " Bucure ști 2013. Ed. Trei. Traducere: V. Popescu. ISBN 978-973-707-870-4.
8. Mielu Zlate. "Introducere în psihologie. " Bucure ști 2009. Ed. Polirom. ISBN 978-973-46-1520-9
9. Robert J. Marzano. "The art and science of teaching. " Virginia USA 2007. ISBN 978-1-4166-0571-3
10. <http://www.psychologies.ro/cunoaste-te/8-etape-pentru-luarea-unei-decizii-2146531>, vizualizat la 17 aprilie 2018
11. A. Cosmovici, "Psihologie generală", Bucure ști 1996. Editura POLIROM. ISBN 973-9248-27-6
12. http://adevarul.ro/locale/galati/cum-luam-cele-maibune-decizii-mintea-trebuie-ecran-decalculator-negru-1_5a34fdb45ab6550cb84167da/index.html, vizualizat la 17 aprilie 2018

PATIENT BEHAVIOR IN THE KNOWLEDGE ECONOMY

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Abstract. The behavior of the patient as well as the physician is strictly regulated by national legislation. At the same time, it needs to be taken into account that this behavior requires taking place in an economy of knowledge, in a customer-oriented economy, a future economy. Of course, patient behavior is varied by the fact that the patient itself is not a healthy person and is treated as a simple client is deficient, that is, here is a field of action at the level of personalized medicine, targeted health care centered on the level of knowledge and behavior of the patient through a complex neuro-managerial economy.

Key words: Patient, neuro-managerial, economy, behavior, knowledge.

JEL CLASSIFICATION: M- 13

For many people, management and leadership terms are the same; both are so intertwined that the differences are not dissolvable by similarities. According to many authors, however, the two terminals are unique concepts and are critical to healthcare organizers and team leaders like any other multidisciplinary institution. Leaders need to understand the difference for their effective incorporation.

Management is about how, while leadership defines what and why a task is done. Management highlights the systems, controls, procedures and policies used in a process (Manion, 2005).

Management within an organization tends to focus strongly on the status quo; leadership evolves with change and embraces innovative thinking and the continual creation of new processes for the future of an organization (Manion, 2005).

Management theory and management studies have taken place since immanent times (Robbins and Coulter, 1996; Wren, 1994). Management, according to Kotter (2003), implies a capacity to cope with complexity throughout the organization. Practices and procedures related to the management of an organization are largely emerging and receptive to organizational development (Kotter, 2003).

Definitively, management, irrespective of the definition it claims, involves efficiently and efficiently meeting organizational goals and tasks with and through people (Robbins and Coulter, 1996).

While apparently two unique ideals, there is an amalgamation in which management and leadership are commonly seen as the same concept. Certainly, you need to have a certain level of leadership or ability to manage within an organization; must be able to drive efficiently.

If the dichotomy occurs, it refers to the relationship of a personal position authority. A member of an organizational team can be a leader without being in an official leadership position (Bolman and Deal, 2003).

Healthcare is a complex network of communications and relationships and, like other industries, has an idiosyncratic nature of organizational design (Litch, 2007). This is significant, according to Herzlinger (quoted by Kovner and Neuhauser, 2004, Porter and Teisberg, 2006), because the US spends more GDP on developing and delivering health care than any other nation in history; citizens are given less care every dollar wasted.

Little is known about the relationship between behavior and collaboration, communication initiatives and impact on health service performance (Agan, 2005); however, a transposition towards behavioral processes in Healthcare is becoming more and more prevalent (Hofstetter, 2006; Potocan, 2009; Stadtler, 2009). Agan described four capabilities of a manager who should possess: (a) Partner selection, (b) Behavior, (c) learned Lessons and (d) Employee knowledge and skills. According to Agan, we know that behavior provides a significant operational capacity directly linked to the integration of the positive stakeholders.

A leader, according to the US Army doctrine. (2006) is anyone who inspires and influences people to achieve their organizational goals. Leaders have the capacity to motivate others both

internally and externally within an organization to follow initiatives, focus their ideas, and shape decisions to more positive results (DA, FM 6-22, 2006).

Leadership has been defined most often in terms that reflect a certain degree of intangibility, and there are individual stakeholders in the relationship and perception (Bolman and Deal, 2003).

Leadership is part of management theory, according to Wren (1994) in that it focuses on achieving organizational goals by effectively engaging relationships and resources. Despite a vast literature on the topic, there is limited evidence of what leadership really is and how much or less it can be applied to healthcare management.

A simple book search, linguistically isolated in English, and according to them at the time we initiated online access to a site such as Amazon.com or Google Academic, creates over 345,000 leadership results; and the health care organizer (manager) highlights less than 2000 titles. Regardless of the evaluation criteria, scrolling through titles, it is easy to see the different nature of the terms and the ways in which they were used. Literature provides a basis for behavior, communication, and overall impact on effective management by assessing, comparing and contrasting visions within the Medical Institution. Literature has served as a catalyst in setting parameters for multidisciplinary issues associated with communications and behavior in health care institutions, and has established a model based on best-in-class best practice as the foundation for efficient management of health care processes.

Each individual medical community (medical team) is a unique entity where various and multiple regulatory environments each require to be considered. (Byrne, 2007). The expression of the principles and the characteristics of the leadership is the superhumanist idealistic approach to fulfilling the tasks during a period of organization. Leadership is not a specialized capacity limited to a little possessed, but is the feature that many of its members possess and which remains untapped as a resource every day.

Manion (2005) reports that leadership is a person's ability to mobilize interest, energy and commitment people in an organization and is a means for a goal - not the end itself. Leadership provides employees subordinate to the goal of performing a task or trying to achieve a goal.

Management is essential for organized efforts and relates to - activities involved in facilitating organizational function, purpose and - the field directly affected by situations (Wren, 1994). Leadership requires success by instilling commitment to success by others.

As the healthcare branch becomes more competitive and volatile, with polemics and ever-changing regulations, leadership will become the basis for determining the future of targeting, aligning people, motivating and changing inspiration (Kotter, 2003).

Leadership encourages employees to act in ways that are creative and intuitive when forced out of comfort areas and encouraged to change their usual and accepted behaviors. Leadership is not a monologue or solo act of unilateral thinking, but it is a process involving the entry, assistance and feedback of others.

Leaders at different levels within organizations should begin to understand and instill behavior communication strategies through a variety of management practices and processes.

Health management is applicable from a perspective of multilateral systems components that work to support future goals of reducing the burden of illness and improving the health and functioning of residents in communities.

As Detmer (2004) asserts, management decisions must be evidence-based and sensitive in several areas of health care - not only in the clinical setting but also among many indirect factors and aspects of healthcare. Regardless of the degree of leadership in organization, each manager within a health environment can incorporate communication strategies into behavior with the environment. The effects of collaborative communications extend into traditional departmental silos and within organizational boundaries.

Behavioral Management.

In establishing a model for behavioral management strategies, we must recognize that there are more definitions of behavior and collaboration. Definitions include a wide range of messages involving multiple elements that may involve simple coordination, synergistic behavior, reciprocal working processes, partnerships, and so on. Atchison and Bujak (2001) report that this behavior is mutually advantageous in relation to clearly defined roles between several parties in order to achieve a common organizational goal. The list could continue with any possibility of using the term behavior and behavior; there is no common definition.

Behavioral management techniques involve a synergistic activity where several parties work together to improve healthcare management practices and processes(VanVactor, 2010). Leaders understand that involving a spirit of behavior among team members must determine the needs of the group to do their work and build the team around to achieve a common organizational goal with the mutual respect of everyone involved (Kouzes and Posner, 2007).

When a leader and followers work together towards a common goal, there is a reality

assuming that there may be more solutions and alternatives generating better versus working alone and being led by followers, being common in many strictly linear organizations (Manion, 2005). Healthcare is a very personal and service-oriented system (Beckman and Katz, 2000). Coile (2000) reports that excellence in service is an achievable objective in today's health services and institutions, despite tight budgets and staff.

An acceptable set of organizational values that require a high performance standard.Every employee of the entire system can be a launch pad for efficient process management.Behavioral management can be a catalyst for making effective changes.

An organization's cult service may be when suppliers, administrators, and support staff work together to use effective communication strategies. By introducing system change, management can monitor successes and shortcomings through employee and consumer feedback.

Behavior and collaboration allows for strengthening social networks (interpersonal relationships), facilitating a trustworthy environment and giving access to various sets of competencies that can help cultivate creative problem-solving strategies (Uzi and Dunlap, 2005). As Kouzes and Posner (2007) point out, when the leader creates a climate of trust, climate removes control, and employees have the freedom to innovate and contribute to the overall purpose and goals of the organization. Leaders who encourage trust in their subordinates involve joint decision-making processes, allow personal satisfaction and encourage high levels of personal satisfaction through a total commitment to excellence in a well-done job.

Behavioral communication strategies promote an understanding of separate cultures, integration and interdependencies by sharing common vision, values and business goals (Atchison and Bujak, 2001). Sutch and Gulati (2008) report that interdependencies between multifaceted partners are embraced and not avoided in business practices. Consolidated relationship is just one aspect of a multiple approach to sustaining and achieving organizational success. A behavioral relationship serves as a means of creating better business knowledge among several stakeholders throughout the organization and can help eliminate traditional organizational silos and inter-departmental barriers.

Although identification of management issues and concerns is rarely difficult, communication strategies used throughout the management of a health care organization may have a positive or negative effect on interdependent interdependent relationships.

Leaders understand that everyone is a messenger of what is appreciated and gave the example that others should follow. Kouzes and Posner (2007) report that part of the leadership's responsibility involves ensuring that actions taken in an organization are aligned to common values among several team members. No matter how well an organization performs tasks, the risk of error or failure increases significantly when ideas developed for an organization do not fit into existing institutional capacities when they are not communicated effectively.

A medical institution receives information from several sources on best business practices related to the provision of services for the needs of a wide range of patients. This feedback may involve a multidisciplinary, multidisciplinary contribution that varies between a variety of individual patient and customer needs towards corporate managers and partners who are both internal and external to an organization.

Management within health care organizations becomes a challenge when, as Schneller and Smeltzer (2006) suggest, stakeholders within an (domestic) health organization can take many identities - seldom it is just the patient, provider, or employee within a department. In addition, an interested party may be external - for example, third party delivery agencies, office equipment suppliers, printing services, publishing agencies, and so on - and the organization (Schutt, 2004). To ensure success, managers need to take into account the needs of a wide range of customer requirements.

Medical institutions and teams can be improved when a comprehensive connection is considered between and among several stakeholders (Potocan, 2009). Decisions in health care organizations about what (when) services and products that provide a customer base sometimes rely on a few people charged with the responsibility of deciding an entire institution. With well-established health care organizations, often under larger organizations and with decentralized budgets, decisions on goods and services sometimes come at the discretion of hundreds of different employees serving thousands of potential clients (Schneller and Smeltzer, 2006).

Subordinate employees must be aware of the impact of their decisions and take into account the secondary and third-party effects. Managers need to encourage confidence in these employees to provide the best possible level of service without blocking, hindering progress in employee creativity and problem-solving skills. Schneller and Smeltzer (2006) highlight this discourse by convincing managers to think of any other single organization, in addition to health care, which has similar practices in a large number of units and operates daily at similar levels of intensity. Behavior is an ability that allows teams and other alliances to work more efficiently.

A behavioral management model

Team leaders within medical institutions have traditionally seen their transactional role (Schneller and Smeltzer, 2006).

The definition of health management tends to be hierarchical and often grounded in the idea of facilitating linear management. Embertson (2006) reports that the traditional organizational structure in a health environment extends command and control from high-level managers through middle and first-class managers to individual employees. Using this Newtonian linear constant strategy (for example, wire diagrams, organizational diagrams, linear command trees, among other types of relationship-setting tools), organizations fall victim to a mechanistic, deterministic, and reductive view of organizational leadership aged 300 years (Shelton and Darling, 2001). To facilitate change, healthcare organizations should start evaluating management roles defined outside traditional parameters. The key to success of change, according to Cohn (2007), is that each person assumes a proactive role in improving team performance, recognizing that each member of a team has a leadership role in the medical environment.

Managing knowledge in a company's organizational silos is an important aspect of medical care management that tends to be overlooked (Burns, 2005). Using knowledge, skill sets and different degrees of understanding among the staff of an organization, managers are better equipped to produce a more synergic environment for employees. Establishing an environment of behavior and collaboration is to embrace the concept of forming strategic alliances between multilateral partners associated with an organization. As many management scholars have identified, this is a critical element of business success (Adams et al., 2007, Agan, 2005, Barnard, 2006, Barrett, 2004, Burton and Boeder, 2003, Cigolini et al., Davis, 2007, Esper, 2003, Hamilton, 2007, Hung, 2003, Kurtulus, 2005;

McCarthy, 2003; Xiong, 2007). To deny this as a factor can be a significant deficit for any organization that does not accept collaborative behavior strategies - not just healthcare.

Philosophically, in an intricate comparison of a healthcare team with other teams from other systems, we look at healthcare as a divergent organization. Healthcare systems and processes are a complex and adaptable environment that uses defined leadership parameters that can not be the key to success in multidisciplinary and multivariate teams where leadership comes from several angles, positions, roles and responsibilities.

Cohn (2007) recommends building a culture of collaborative behavior in which leaders encourage learning and professional growth by allowing people to take prudent risks and make it difficult to overcome difficulties and conflicts. Obscurity in this concept derives from a sub-culture in which there is a service regulation, external stakeholders often define management strategies and the smallest error can lead to the cost of the statelessness of the stateless. Effective collaborative behavior can help create a more positive outlook enabling professionals from multiple disciplines and backgrounds to develop new strategies based on common vision, rather than on unilateral planning efforts (Cohn, 2007).

According to Embertson (2006), physicians in health care institutions are decision-makers. Economic stress, however, determines medical institutions to attach much greater importance to efficiency and cost-effectiveness; management responsibilities (Embertson, 2006). This does not mean that doctors are not aware of this task, however, they can not do it alone and still see patients - first of all, the foundation of healthcare. An interpersonal relationship base develops health care. Institutions embrace healthcare to stay successful.

Research is somewhat limited in health care compared to other systems in the economy in terms of performance improvement; Health care managers can learn from lessons learned from extensive businesses (Kovner et al., 2004). If this becomes a complicated course when managers begin to realize the complexity of a health care organization. Tan et al. (2005) reports that a complex adaptive system is a collection of individual, semi-autonomous agents acting in ways that are not always predictable. Medical care is composed of many complex, non-linear interactions that often occur as part of a symbiotic relationship (Cohn, 2005). In health systems, systems are often unmatched due to systemic constraints related to disease processes, multidirectional goals, searches, missions, and multidisciplinary staff working on similar but not always equilateral objectives (Tan et al., 2005).

Many actors involved in a health environment form a collection of benefactors of an effective behavioral leadership environment. Managers will often be successful in varying degrees and will differ in designing, structuring and monitoring organizational achievement and goals (Kovner and Neuhauser, 2004). Leaders can capitalize on this interactivity and can use resources that are typically unused throughout the organization. In order to achieve this efficiency among the respective entities, behavioral management must be a central element in the design of management processes and must be the basis on which management and management are conducted. Behavioral communication should become a perpetual interactivity cycle between multiple stakeholders to ensure that communication channels remain unobstructed.

Leaders must remain aware of how information is input into healthcare processes (the stage of setting the conditions). Multi-level managers need to make decisions on how to better meet people's needs during assistance (planning phase); people at different levels of responsibility must be willing to hire the management to validate and communicate additional needs or to meet the set requirements. Through this dynamic exchange, information from one side to another enters a feedback loop where the processed information determines the most efficient and effective way of meeting requests (the execution phase). Procedural guidelines are received from high-level leaders and the results are assessed by junior leaders that give potential for process improvement during future processes (evaluation phase). Once the information sent and received is effective, the process starts again. The key component of this model is feedback loop; more players can enter this feedback loop many times during a behavioral process. Success or failure in the outcome of the process determines what is being done with the information during the data exchange.

Effective behavioral communication strategies increase health management through open and encouraged dialogue between several stakeholders. Behavior involves the involvement of several stakeholders, creating a perpetual dialogue, a feedback loop to maintain a well-aligned alliance among several stakeholders. An open sharing of knowledge and experiences stimulates problem solving and resolution, which can often mitigate the complexity of health care organizations. Gaps in communication indicate that a relationship has a lower priority, which may lead to a breakdown and potential failure in a health network. For reasons of speed and efficiency, health leaders tend to lose sight of the problem-solving team approach and minimize interactivity between subordinate managers or external stakeholders (Meredith, 2009).

One aspect of organizations that behaves in a behavioral way is to empower employees with ideals associated with an informed organizational culture where there is easy to share information between multiple levels of leadership and employees. While many argue the role of the manager in an organization to serve as an information, disseminator and spokesperson (Longest et al., 2000), the fair sharing of this role among the different roles within an organization is ideal. As a monitor, staff collect information, assess and decide if action is needed. As a disseminator, managers use information to evaluate and decide the next step. Finally, as a spokesman, the employee receives information and communicates to affected parties.

By encouraging an organizational culture based on the effective exchange of information and knowledge, stakeholders recommend managing the risks and implications for the welfare of an organization and teams. Sometimes the problems faced by different levels of leadership can have a significant impact on existing commercial operations and on patient safety. Continuing communication can significantly contribute to reducing organizational risk; intra- and inter-departmental communications can cause changes that are necessary to suppress situations where there are inherent risks. Not every person will know all possible strategies, and what makes a form of risk mitigate may not be effective in another.

CONCLUSIONS.

Behavioral management is essential for today's family physician team. As Kouzes and Posner (2007) relate, behaviors and collaboration are so important to the success that each significant relationship must be treated as if it were a lifetime trial. The face of health management is an evolutionary process, and relationships established between multifaceted partners can produce dynamic effects on a team environment. Managers in the medical institutions and medical teams networks should begin to realize that some forms of horizontal and linear management models seem to be very different and probably become somewhat ineffective in some cases. Particularly among medical institutions, where requests come from many different sources, according to Schneller and Smeltzer (2006), none is sufficient to effectively encapsulate the efficient management of resources and medical resources

Behavioral management of healthcare involves a synergistic working environment in which several parties work together to improve effective practices and processes. Health leaders face challenges that have not already been experienced Aligning different interests, skills and competences together can be a difficult task for most managers and leaders of the world. Behavior promotes an understanding of separate cultures, integration, and interdependencies by sharing common vision, values and goals for meeting the needs of the patient (Atchison and Bujak, 2001). Interdependencies between multifaceted organizational partners need to be embraced (Sytch and Gulati, 2008). When multiple parties work, it creates synergy to produce a greater effect than the sum of individual efforts. The actions taken together increase the effectiveness of each individual contribution.

Managers take responsibility for encouraging and embracing stakeholders' various interests in order to achieve a more productive and positive outcome for a medical team; behavior ensures that everyone's voice is listened in an efficient, timely manner.

Behavioral and management management strategies are not independent processes and can serve as a means of encouraging growth throughout the organization. Behavior occurs when more people work together for mutual benefit and develop a form of organizational symbiosis in any business and inter-organization relationships. The process is also a means of communicating information to colleagues and other associated organizations in a system so that they can make informed choices and provide more accessible health care (Ireland and Crum, 2005). Through behavior, managers and leaders mobilize each other operationally so that more stakeholders can work more efficiently than if they are trying to function as separate entities

BIBLIOGRAPHY:

1. Adams AJ, Gupta M, Raho L. Perceptions of management philosophies. *J Qual Participation* 2007;30:34–40 (Summer: 2).
2. Agan, Y, A resource based approach to supply chain integration, Doctoral dissertation, University of Memphis, 2005.
3. Anderson DJ, Moran JW, Brightman BK, Scheur BS. Transforming health care: action strategies for health care leaders. San Francisco: John Wiley & Sons, Inc.; 1998.
4. Atchison TA, Bujak JS. Leading transformational change: the physician–executive partnership. Chicago: Health Administration Press; 2001.
5. Autry CW, Zacharia ZG, Lamb CW. A logistics strategy taxonomy. *J Bus Logistics* 2008;29(2):27–52.
6. Barnard, JH, A multi-view framework for defining the services supply chain using object oriented methodology (Doctoral dissertation, University of Central Florida, 2006).
7. Barrett M. Understanding the meaning of collaboration in the supply chain. *Supply Chain Manage* 2004;9(1):30–42.
8. Beckman SL, Katz ML. The business of health care concerns us all: an introduction. *Calif Manage Rev* 2000;43(1):9 Fall.
9. Birk SK. Supply chain innovation in other industries: what can we learn? *Healthc Exec* 2008;23(3):48–54 May/June.
10. Bolman LG, Deal TE. Reframing leadership. *Business leadership*. San Francisco: JosseyBass; 2003. p. 86-110.
11. Blanchard D. Supply chain management best practices. Hoboken, NJ: John Wiley & Sons, Inc.; 2007.
12. Bossidy L, Charan R. Execution: the discipline of getting things done. New York: Crown Business; 2002.
13. Bryant B, Wildi J. Mindfulness. *Perspect Managers* 2008;162:1–4 September. Burns LR. The business of healthcare innovation. New York: Cambridge University Press; 2005.
14. Burton TT, Boeder SM. The lean extended enterprise: moving beyond the four walls to value stream excellence. Boca Raton: J. Ross Publishing, Inc.; 2003.
15. Byrne FD. Aligning physician–hospital relations: an integrated approach. *Health Care Exec* 2007;22(4):8-12 July/August.
16. Cigolini R, Cozzi M, Perona M. A new framework for supply chain management: conceptual model and empirical test. *Int J Oper Prod Manage* 2004;24(1/2):7-41.
17. Cohn KH. Better communication for better care: mastering physician–administrator collaboration. Chicago: Health Administration Press; 2005.
18. Cohn KH. Collaborate for success! Breakthrough strategies for engaging physicians, nurses, and hospital executives. Chicago: Health Administration Press; 2007.
19. Coile Jr RC. New century healthcare: strategies for providers, purchasers, and plans. Chicago: Health Administration Press; 2000.
20. Davis, JP, Collaborative innovation, organizational symbiosis, and the embeddedness of strategy (Doctoral dissertation, Stanford University, 2007).
21. Department of the Army. FM 6–22, Army leadership: competent, confident, and agile. Washington, DC: Headquarters, Department of the Army; 2006. October.
22. Detmer DE. A new health system and its quality agenda. In: Kovner AR, Neuhauser D, editors. *Health services management: readings, cases, and commentary*. 8th ed. Chicago: Health Administration Press; 2004. p. 307–28.
23. Embertson MK. The importance of middle managers in health care organizations. *J Healthc Manage* 2006;51(4):223–32 Jul/Aug
24. Esper, T, Supply chain collaboration: investigating the effects of citizenship behavior on boundary spanners' perceptions of supply chain relationships (Doctoral dissertation, University of Arkansas, 2003).
25. Hamilton Jr L, The relationship between perceived leadership styles of principals and teacher satisfaction (Doctoral dissertation, University of Phoenix, 2007).
26. Harrison B. The nature of leadership: historical perspectives & the future. *J Calif Law Enforcement* 1999;33(1):24–31.

27. Henry Jr JD, Gilkey RW. Growing effective leadership in new organizations. In: Gilkey RW, editor. *The 21st century healthcare leader*. San Francisco: Jossey-Bass; 1999. p. 101–10.
28. Hofstetter J. Assessing the contribution of ECR. *ECR J* 2006;6(1):20–9 Spring. Hung, K, Quality and implications of just-in-time logistics (Doctoral dissertation, University of Michigan, 2003).
29. Ireland RK, Crum C. Supply chain collaboration: how to implement CPFR and other best collaborative practices. Boca Raton: J. Ross Publishing, Inc.; 2005. Johnson S. Who moved my cheese? New York: G. P. Putnam's Sons; 1998.
30. Kotter JP. What leaders really do. *Business leadership*. San Francisco: Jossey-Bass; 2003.p. 29–43.
31. Kouzes JM, Posner BZ. *The leadership challenge*. 4th ed. San Francisco: John Wiley & Sons, Inc.; 2007.
32. Kovner A, Neuhauser R. *Health services management: readings, cases, and commentary*. 8th ed. Chicago: Health Administration Press; 2004.
33. Kovner AR, Elton JJ, Billings J. Transforming health management: an evidence-based approach. In: Kovner AR, Neuhauser R, editors. *Health services management: readings, cases, and commentary*. 8th ed. Chicago: Health Administration Press;2004. p. 9-34.
34. Kurtulus M, Supply chain collaboration practices in consumer goods industry (Doctoral dissertation, INSEAD, 2005).
35. Ledlow GR, Corry AP, Cwiek MA. *Optimize your healthcare supply chain performance: a strategic approach*. Chicago: Health Administration Press; 2007.
36. Litch BK. The marriage of form and function: creating a healing environment. *Healthc Exec* 2007;22(4):20–7 July/August.
37. Longest BB, Rakich JS, Darr K. *Managing health services organizations and systems*. 4th Ed. Baltimore: Health Professions Press; 2000.
38. Manion J. From management to leadership: practical strategies for healthcare leaders. 2nd ed. San Francisco: Jossey-Bass; 2005.
39. McCarthy, TM, Interim demand integration: the role of marketing in bridging the gap between demand and supply chain management (Doctoral dissertation, University of Tennessee, 2003).
40. McKee A, Johnston F, Massimilian R. Mindfulness, hope, and compassion: a leader's road map to renewal. *Ivey Bus J Online* 2006:1–5 May/June.
41. Meredith JR. Issues in the modeling-empiricism gap. *J Supply Chain Manage* 2009;45(1):44–8 January.
42. Porter ME, Teisberg EO. *Redefining health care: creating value-based competition on results*. Boston: Harvard Business School Press; 2006.
43. Potocan V. Organizational viewpoint of the relationship in supply chains. *J Am Acad Bus Camb* 2009;14(2):181–7 March.
44. Robbins SP, Coulter M. *Management*. 5th ed. Upper Saddle River, N.J.: Prentice Hall; 1996.
45. Schneller ES, Smeltzer LR. *Strategic management of the healthcare supply chain*. San Francisco: John Wiley & Sons, Inc.; 2006.
46. Schutt JH. Directing the flow of product: a guide to improving supply chain planning. Ft.Lauderdale: J. Ross Publishing, Inc; 2004.
47. Shelton CD, Darling JR. The quantum skills model in management: a new paradigm to enhance effective leadership. *Leadersh Organ Dev J* 2001;22(5/6):353–60.
48. Stadtler H. A framework for collaborative planning and state-of-the-art. *OR Spectr* 2009;31(1):5-30 January.
49. Sytch M, Gulati R. Creating value together. *MIT Sloan Manage Rev* 2008;50(1):12–3 Fall.
50. Tan J, Wen HJ, Awad N. Health care and services delivery systems as complex adaptive systems. *Commun ACM* 2005;48(5):37–44 May.
51. Uzzi B, Dunlap S. How to build your network. *Harv Bus Rev* 2005;83(12):53–60 December.
52. VanVactor JD. *Collaborative communications: a case study within the U.S. Army medical logistics community*. Saarbrucken, GE: VDM Publishers; 2010.
53. Weick KE, Sutcliffe KM. Mindfulness and the quality of organizational attention. *Organ Sci* 2006;17(4):514–26 July/August.
54. Wren DA. *The evolution of management thought*. 4th ed. New York: John Wiley & Sons,Inc.; 1994.
55. Xiong, H, Coordination and inventory management in supply chains (Doctoral dissertation, Stanford University, 2007)

MULTI-CRITERIA STUDY OF PIGS IN THE REPUBLIC OF MOLDOVA

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Abstract. *The agro-industrial complex of the Republic of Moldova needs essential organizational reforms, both managerial and economic. The restructuring process and state privatization program in the pig breeding sector did not solve the problem of the formation and establishment of the basic owners. During the privatization, a significant part of the complexes recorded cardinal changes. From private households and cooperatives they went to limited liability company and joint stock company.*

The concept of the restoration and further development of the breeding industry is based on international practice. In this context, a large number of producers use different forms of cooperation and integration. In order to increase the number of pigs, it is necessary to develop a state program that would contribute to the stimulation of the production cooperation and its realization, as well as the sphere of service. So, it is important to support private producers by creating a system of raising pigs in which businesses will be created to handle the selection work.

Key words: reforms, privatization, pigs, system, households, concept.

INTRODUCTION

Although the Republic of Moldova has experienced a steady growth of GDP in real terms in the last 12 years, except for 2009 and 2012, the figures are not so favorable for the livestock sector, namely the registered pig population. In the reported period, the annual average real GDP growth stood at 5.1 percent, the pig population diminishing, but eventually managed to recover from losses, reaching only 8 percent higher at the end of the second quarter of 2014 compared to 2002, according to the National Bureau of Statistics.

During 12 years the number of pigs in Moldova decreased from 508 thousand to 467 thousand heads. A similar phenomenon occurred with the number of cows, which decreased by 146 thousand, thus modifying the structure of livestock in the country.

However, compared with the stock of pigs, which is currently slightly increasing, the share of cattle has decreased significantly and has reached 12% of livestock.

In the Republic of Moldova pork is the most important type of meat, accounting for about half of the total meat production, pig breeding being the sector with the largest share in animal husbandry. For consumers, the consumption of pork is a tradition and represents about 50% of the annual meat consumption. If in 2010 a person consumed an average of 30.7 kg of meat annually, then the data for 2015 shows that this annual consumption has increased by 8 kg. According to data for 2016, the consumption of meat and meat products in the Republic of Moldova was on average 38.7 kg / person or about 106 grams per day.

It should be noted that the rational development of this sector takes place exclusively through the implementation of modern and efficient growth technologies and sanitary veterinary actions aiming to ensure the health of pigs. The use of high-tech technological processes to increase pigs will certainly allow for positive results in this sector.

1. Literature

The factual material used in the elaboration of the paper is based on the official statistical data provided by the National Bureau of Statistics, the scientific works in the field by native and foreign scholars. Additionally, periodical publications in the field were used, the publications of the governmental institutions responsible for the problem approached.

In this report we used the monographic, mathematical, statistical and economic methods to obtain the expected results.

2. Analysis of the flock of pigs

In this chapter we will analyze the particularities characteristic of the increase of the pigs, the number of the registered flock, the productive potential of the animals, etc. The purpose of this analysis is to identify the means of using animals with high production potential for each farm, which would be one of the basic conditions for increasing economic efficiency.

2.1 The dynamics of the growth of the breeding branch in the Republic of Moldova

Swine growth is a traditional branch with deep roots in the history of the Republic of Moldova. This branch is an important source both for covering the needs of the domestic meat market and for developing the potential of the national economy. The points outlined above are important because they reflect the national traditions and habits related to the consumption of this product as well as the climatic and economic conditions of the branch.

Table 1. The sheep farmer by category of households

| Categories of households | Over the years, thousands of heads | | | | | | |
|---------------------------------|------------------------------------|------|------|------|------|------|------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 1. Agricultural enterprises | 137 | 119 | 141 | 158 | 196 | 185 | 190 |
| 2. Peasant households | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| 3. Households of the population | 339 | 318 | 268 | 261 | 276 | 267 | 248 |

Source: National Bureau of Statistics.

From the data obtained in the above table, we find that in the reference period the number of sows registered an increase in agricultural enterprises, accounting for about 33.3%. On the opposite side, there are peasant households that have experienced a decrease in pig population, and at the same time it has maintained its share of one thousand heads from 2013 until 2017. Population households in the top of the list in terms of number of registered pigs, but keep the tendency to decrease the stock from 2012.

Such a significant concentration of pigs in households shows that interest in this sub-branch is significant. It appears that the given sector is of particular importance in the development of the food industry. The maximum number of herds was reached in 2011 and constituted 339 thousand heads, and the minimum in 2017 and made 248 thousand heads.

Farm businesses offer opportunities to attract foreign investment in the development of the sub-sector. Compared to households, the other households have a lower share in the total number of pigs. Here we can only mention that agricultural holdings have a more significant weight of about 2%.

The distribution of livestock is of scientific interest not only by household categories but also by territorial aspect. Most agricultural enterprises, especially those specializing in animal husbandry, were set up on the basis of former state entities (kolhoz, sovhoz, intergovernmental enterprise, etc.). At the same time, in recent years, the animal products market has diversified and is constantly changing, new businesses have emerged according to the sales market, production capacity and consumer requirements. The latest data published by the European Commission in 2017 indicates a sustained increase in the price of pork throughout Europe, which also reached 40% compared to the similar period of 2016.

In the next step, we will analyze meat production in households of all categories. Table 2 shows the quantity of meat obtained after slaughter.

Table 2. Meat production in households of all categories

| Production | Years, thousands of tons | | | | | | | |
|----------------------------------|--------------------------|-----------|-----------|-------|-------|-----------|-------|-------|
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Meat (by weight after sacrifice) | 90,8 | 110, 9 | 117, 9 | 115,7 | 115,1 | 122, 2 | 130,6 | 137,8 |
| Beef and veal | 11,1 | 10,2 | 9,7 | 9,5 | 8,3 | 8,2 | 8,4 | 9,5 |
| Pork meat | 42,2 | 56,9 | 63,9 | 64,5 | 61,1 | 64,6 | 71,9 | 72,7 |
| Sheep meat | 2,2 | 2,1 | 2,1 | 2,1 | 2,0 | 1,9 | 1,9 | 1,9 |
| Bird meat | 34,5 | 40,9 | 41,4 | 38,8 | 42,9 | 46,7 | 48,4 | 52,4 |

Source: National Bureau of Statistics.

According to the data in the table, we notice that the largest quantity of meat produced is the pig. Moreover, after an insignificant decrease in 2013, there is a steady increase in production. The second place after the registered quantity is occupied by poultry meat, which from 34.5 thousand tons increased to 52.4 thousand tons. The third place is the production of beef and veal with the quantity of 9.5 thousand tons in 2016. The last place is occupied by the production of sheep meat, which for the whole reference period is at a constant level. As you can see, the production of swine meat is steadily increasing because of market demand and an increase in entrepreneurs' income. To this end, a number of sausage production companies have been in operation lately, implementing state-of-the-art technologies and gradually expanding their production capacities.

2.2. Classification of entities by quantitative indices

As mentioned above, meat breeders are increasingly interested in increasing the competitiveness of production, including through the sale price. The livestock plays a decisive role in solving this problem, firstly by the fact that with the increase in livestock, the entity changes its cost structure in the fixed cost / variable costs ratio, there are changes in the technological process of growth. In Table 3, we present the ten, largest, type LS entities systematized by total staff.

Table 3. Top ten largest LLCs by actual

| Entity | Totally, heads |
|--------------------------|----------------|
| A | 1 |
| 1. Pucoven | 49 156 |
| 2. Porco Bello | 28 350 |
| 3. Agroseminvest | 21 393 |
| 4. Funny Pig | 20 570 |
| 5. Confort | 5 250 |
| 6. Elevator KELLY GRAINS | 3 169 |
| 7. Vegecom | 3 000 |
| 8. Gordanu Grup | 2 925 |
| 9. Farm Meat | 2 730 |
| 10. Valul Traian | 2 200 |
| Total | 138 743 |

Source: Developed by the authors based by the information gathered on the ground with the support of the scientific project "Strategies for modernizing the zootechnical sector in the context of food security and regional economic integration".

The largest specialized in the country producing swine meat in the country is Pucoven with 49 thousand heads. This entity, in fact, the entity in question is also the largest in the country on the sub-breeding of the swine. The top ten LLCs hold 138743 pig heads of 15,899 heads registered in

these types of businesses, or 87.42% relative in size. Therefore, in the first ten LLCs, about 87% of the total number of pigs on such entities is concentrated.

We observe that the subspecies of the swine meat-breeding trend tends to be modernized by concentrating the staff into large entities. This offers a number of opportunities:

- 1) reduction of operational costs;
- 2) integration of production quality system;
- 3) attracting investments and state subsidies for the modernization of technology and equipment;
- 4) contracting large-scale meat production to domestic and international operators;
- 5) increasing the possibilities for marketing the production to the EU's Single Internal Market;
- 6) The capitalization of pigs for meat is based on specialized breeds.

Some of these are entities founded with the participation of foreign capital. Analysing these businesses more deeply, we identify some distinct features, namely. Privatizing assets based on state pig breeding complexes constitute several enterprises in this group as pork / meat processing units / departments of meat processing companies (sausages), others as specialized units of grain storage and processing enterprises, thirdly, founding entities. Although the training paths were different, these companies are the most modern in terms of the technology of growth and the equipment with which the maintenance spaces are equipped. The meat production system is of an intensive type, some of which are closed-loop production farms¹.

Table 4. Top ten largest individual enterprises

| Entity | Totally, heads |
|---------------------|----------------|
| A | 1 |
| 1. Bivol Vladimir | 550 |
| 2. Vicogrozodeh | 493 |
| 3. Scorpion | 293 |
| 4. Covalenco T | 248 |
| 5. Burlescu S | 244 |
| 6. Sărătilă Victor | 234 |
| 7. Guțanu Vasile | 150 |
| 8. Gornov N. | 140 |
| 9. Prisacari | 115 |
| 10. Vasilică Victor | 89 |
| Total | 2556 |

Source: Developed by the authors based by the information gathered on the ground with the support of the scientific project "Strategies for modernizing the zoo technical sector in the context of food security and regional economic integration".

The largest individual enterprise in the country has a staff of 550 heads. Most have a staff of over 100 headsIn these entities about 2556 heads out of 3717 of the total staff in this group are concentrated with a share of 68.76%. As we see, the concentration of pigs in these entities is high. Regarding the location of these entities, we cannot distinguish a rule, as most of them are located throughout the country, so that the output obtained is geared towards the regional markets of the country. Most of them sell live mass production to slaughterhouses or animal purchasing entities. Some of them sell their produce to the agricultural markets. We find that most of these entities have sows and boars in the herd structure, so the organization also organizes the process of assembling. This stage of the technological flow provides a cost advantage for the stage of obtaining live produce (piglets).

Although there is a tendency to modernize the technological flow and the maintenance and growth equipment to pig fattening, in most cases the technological process is extensive, the

evacuation of manure, the cleaning and decontamination of the pigs' maintenance spaces are not performed at an insufficient level. For enterprises of this kind, domestic competition puts pressure on two types: 1) on the part of large producers; 2) from households. There is also competition from imported meat production. Moldova has become a net importer of pork in recent years. Domestic meat production provides 30-40% of the existing demand. In addition, entities of this type encounter difficulties in accessing state subsidies.

From the above mentioned the individual enterprise not is the most suitable form of activity for the production of pork but also, in general, of livestock farming as an economic activity. In order to become an economically developed entity, product quality and competition, the entity requires organizational and legal changes.

2.3. Difficulties encountered in raising the suicide by novice entrepreneurs

In the last years, a substantial number of businesses in the zoo technics sector have been employed in the Republic of Moldova, although the problems that have arisen have been insufficiently addressed. In order to reduce the outflow of population abroad, a number of agricultural programs were created for the population from the corresponding environment. As any business, the growth of sues involves some risks whose resolution requires professionalism and financial resources.

One of the basic issues that, in principle, is vital for good activity and business continuity is that of feeding supplies. It is very important for the entrepreneurs to have enough land to meet their food needs. Possession of land lots allows reducing the cost of purchasing food. For example, feed costs are raised annually to some hundreds of thousands of lei for about 300 heads.

Another problem is selling meat. Entrepreneurs produce just as much production as can be achieved on the local market. With the development of the business, one can also try to study the foreign market. At present, pig breeders with good market experience and high quality of the products offered enjoy generous consumer demand. Usually, meat is marketed at regional markets or stores. Lately, pig breeders assemble their own slaughterhouses for the slaughter of animals. It is an expensive but indispensable investment.

Another issue that creates difficulties in the normal development of this sub-branch is the lack of specialists. There is an acute lack of veterinarians to monitor animals permanently. It is known that procedures are required that are done once or twice a year, but there are others that are done monthly.

A risk of a swine business is that the production is selling harder during the warm period. It should be noted that during the summer months, the meat has to be kept for a while in the refrigerator, and the producers who do not have them have difficulties. Purchasing new equipment to keep production under normal conditions requires significant investment.

The issue of selling meat at a reasonable price to the producer is another issue that needs to be addressed. At the beginning of this year a pound of pork is sold wholesale at a price of 35-40 lei, and at the market the cost reaches even to 90 lei the kilogram. The created situation favours the emergence of an economic imbalance represented by a considerable price difference and is a subject of high level discussion. The state institutions empowered in this respect are obliged to solve the situation created by identifying the legal mechanisms of intervention.

CONCLUSIONS

1. Such a significant concentration of the number of pigs in the households of the population shows the highest concentration of pigs;
2. Pork production in households of all categories is in the first position;
3. The world's largest specialized pigmeat producer is Pucoven with a staff of about 49 thousand heads;
4. The first ten LLCs are concentrated around 87% of the total number of pigs on such entities;

5. LLC is the organizational-juridical form with the largest number of cattle per enterprise;
6. The largest individual enterprise in the country has a staff of 550 heads;
7. Growing pigs requires large investments, permanent upgrading and technology;
8. We believe that the problems identified and analyzed should serve as a valid argument for decision-makers to initiate the process of regulating the pricing mechanism for agricultural products on the national market.

BIBLIOGRAPHY:

1. National Bureau of Statistics of the Republic of Moldova. Effective cattle and poultry on January 1 by households, 1980-2016 (2017). [Citat: 10 iulie 2017.]
2. Legislative act. The Law on Farmers (farmer) (2001). The Official Monitor. Chisinau : State Information Agency "Moldpress". 14-15.
3. Bran M., (2002). Comparative animal husbandry - technological bases. Bucharest: AES Bucharest.
4. Spoială L. et al., (2013). Health care in the Republic of Moldova, Chisinau: National Bureau of Statistics.
5. Spoială L. et al., (2015). Moldova figures, Chisinau: National Bureau of Statistics of the Republic of Moldova.

GOOD PRACTICES IN CREATIVE ENTREPRENEURSHIP. CASE STUDY: BALTIC COUNTRIES

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Abstract. Drawing on the concept of glocalization, the author aims to compare experiences and achievements of three Baltic countries in the field of creative industries. It seeks to crystallize the issue of creative industries in the Baltic context, and to figure out how the new concept of the creative economy is changing the understanding of the humanities and business functions, and the dynamics of their mutual interaction. In addition to the analysis of the prospects of creative industries in the Baltic countries and the obstacles they are facing, the paper aims at identifying parallel processes (the emergence of business incubators and creative villages) and different environments of the dispersion of creative industries.

Key words: Baltic countries, creative industries, creative economy, culture, creative clusters, creative cities, creative hubs.

JEL Classification: F 02, F 42, F 63, M 13

Creative industries (CI) have the potential to turn the current crisis into new opportunities and make the economy competitive and sustainable in the long term. Creative industries bring not only growth and jobs, but also foster innovation and shape attractive environments for people to live in and visit. Today, the creative industries are one of the world's largest growth sectors, estimated at 3.4% in 2005, 4% in 2008, and 5.26% in 2012 in world trade.

According to UNCTAD data, in 2011 the global economy of creative goods and services (excluding the software industry) reached the record of \$ 624 billion, compared to \$ 559 billion in 2010. Exports of films, music, design, or books were on the rise 2011, reaching the pre-crisis value. With an annual growth of 14.7%, China remains the largest exporter of creative products, tripling its exports in 2011. The profound analysis of these results highlights massive support from the state. Thus, since 2007, the public investment in culture and creative industries tends to grow by 23% annually.

In the case of the Republic of Moldova, the calculations show that the creative industries make an important contribution to the national economy, accounting for 3.31% of GDP. However, this level is lower than in most of the countries in the region. Thus, according to this indicator, Moldova surpassed only Ukraine (2.9%), but it is behind Russia (6.1%) or Romania (5.6%). Thus, the level and good development practices of creative industries in some European countries can serve as an example for the development of this sector in our country [7].

The Baltic countries (also known as Baltic States represent the northeastern region of Europe containing the countries of Latvia, Lithuania and Estonia on the eastern shores of Baltic Sea) have experience in working together to develop creative industries. Discussions of the creative industries agenda in the Baltic countries date back to the beginning of 2000. According to Ministers for Culture from Estonia, Latvia and Lithuania, the first network to combine policymakers from the three countries were already initiated back in 2006. Since then experts and officials have been sharing best practices in the creative industries and formulating common positions within the European Union.

Mapping creative industries in Estonia, Latvia and Lithuania

Estonia and Lithuania managed to include the financing of creative industries into the National strategy for EU Structural Funds for 2007–2013. Estonia primarily applied for support from the Structural Funds to create infrastructures to support the development of CI, valuing creativity and raising awareness of entrepreneurship and creative industries. In Lithuania, financing for the Lithuanian art incubator network was intended as part of the implementation of „the Action Programme for Economic Growth”. Although all three countries base their definition of CI on the

British definition, in later studies somewhat different sectors have been included when composing the research methodology (Table 1).

Table 1. Subsectors of creative industries covered by statistical research

| Subsectors | Estonia (2009) | Latvia (2008) | Lithuania (2009) |
|--|--|--|--|
| Visual arts | Arts (visual and applied arts) | x | Visual arts, applied arts and heritage |
| Performing arts (theatre, dance, festivals) | x | x | x |
| Music (interpreting, composing, producing, publishing, musical instruments, festivals, etc.) | x | x | x |
| Architecture | x | x | x |
| Design (product design, fashion, graphic design) | x | Design | Designer fashion, Graphic design |
| Film and video | x | x | x |
| Television, radio and interactive media | Broadcasting (radio and television) | x | x |
| Computer games and interactive software publishing | Entertainment IT (online and computer games, entertainment internet sites) | x | x |
| Publishing | (books, periodicals, newspapers, catalogues, etc.) | (books, periodicals, newspapers, etc.) | (books, magazines, newspapers, etc.) |
| Heritage (museums, libraries, archives, handicrafts) | x | Cultural heritage | Heritage (museums, libraries and archives) |
| Advertising and public relations and communication activities | Advertising (advertising, media agencies) | Advertising | x |
| Cultural educational activities | - | x | Educational activities |
| Recreation, entertainment and other cultural activities | - | x | Botanical and zoological gardens |
| Travel agencies and tour operators | - | - | x |

Source: Survey and Mapping of the Creative Industries in Estonia, 2009; Creative industries research. Actualization of statistics, 2008; Lithuanian Creative and Cultural industries, 2009

x – subsector is present in the country, in other case the name is wrote in the appropriate box;

- – the subsector is not present in classification in this country.

Thus, for example, the mapping of the IT (Information Technology) sector in Estonia has been relatively narrow, covering only entertainment IT. However, in Latvia and Lithuania, vastly broader scopes have been covered when it comes to the IT sector. Research by Lithuanians even includes the heritage sector, which has not been mapped in Estonia or Latvia. The latest Lithuanian research of mapping emanated from cultural and creative industries. This is a broader notion that includes CI and tourism, sport, museums, archives, heritage protection and other cultural activities. Yet, when accounting for CI contributions, fields related to sports were excluded.

As these sectors in the three Baltic countries have been researched and mapped differently, then the real benefits, value added and other economic as well as statistical indicators are not directly comparable. All the research tried to assess both CI's contribution to employment, and its economic role in producing value added and revenues (Table 2).

Table 2. Economic and statistical indicators of CI

| Indicators | Estonia (2007) | Latvia (2006) | Lithuania (2006*, 2007) |
|--|----------------------------|----------------------------|-------------------------------|
| Number of people working in CI, (% of all employed) | 28 000 (4.3%) | 63 511 (5.8%) | 61 297 (4.02%) |
| Number of businesses in CI (% of all businesses) | Over 5 000 (9.4%) | 9 327 (8.9%) | 6 149 (8%) |
| Total income of CI (million EUR) | 1 146 | 1 014 | 1 256 |
| CI as a share of GDP | 2.9% | n/a | 5.2%* |
| Concentration in the capital city | 47.1% of CI enterprises | 54.8% of CI enterprises | 70% of value created by CI |

Source: Survey and Mapping of the Creative Industries in Estonia, 2009; Creative industries research. Actualization of statistics, 2008; Lithuanian Creative and Cultural industries, 2009

Creative Industries Policy in Estonia

Creative Industries have been widely discussed all over the world in the last decade, and from the beginning of this century, Estonia has also been actively involved in those developments.

Creative Industries measures and policies are coordinated in close cooperation between the Ministry of Culture and the Ministry of Economic Affairs and Communications. Programs are implemented by Enterprise Estonia, which is one of the largest institutions within the national system for entrepreneurship support, providing financial assistance, advice, cooperation opportunities and training for entrepreneurs, research establishments, the public and third sector.

The main focus areas supporting creative industries in Estonia for 2007 – 2013 include the growth and sustainability of enterprises within creative sectors and enhancing creativity in the business community through synergies between creative people and companies and the rest of the economy. The role of cultural and educational institutions is to focus on the early stages of the creative industries value chain (including the creation phase) through educating creative professionals and mediators and supporting the core arts fields and cultural industries [1, p.8].

Enterprise Estonia is the primary contributor of support and development programs targeted towards entrepreneurs including creative businesses and in 2008 the Creative Industries support program was started. These programs include cluster support programs (e.g. film industry cluster development), export support and joint marketing programs (e.g. „Tallinn Music Week” – an event to show-case Estonian music, „Black Market” – a film co-production), skills and knowledge development programs (e.g. design management training courses) and awareness raising and entrepreneurship promotion programs (e.g. the Creative Estonia initiative, see below), support for innovation, product development and training [1, p.8].

The strategic goals of supporting the Creative Industries include, first of all, more sustainable and fast growing start-ups. Co-operation with Creative Industries sector will also contribute to increasing export and internationalization of Estonian companies. Additionally, higher R&D capability of Estonian companies in Creative Industries sector is expected, thus, resulting in more revenues from creative clusters and balanced regional development [1, p.9].

Estonia already founded a network for creative industries policy makers in 2006 in cooperation with Latvia, Lithuania and Finland. Since 2008, Estonia has been taking part in the European Union's cultural and creative industries working group. Estonia has also worked with the European Commission, Finland, Sweden, Norway, Iceland, Denmark, Germany, Poland, Lithuania, Latvia and Russia to set up the Northern Dimension Partnership on Culture (NDPC) [1, p.9].

Below are presented the best practices in the creative industries of Estonia.

The ESA Tallinn Creative Incubator, one of three enterprise incubators run by the Business Support and Credit Management Foundation (Estonian acronym ESA), was officially opened in September 2009, though it had already begun to provide support for creative enterprises in 2008.

The idea for the Creative Incubator was born in 2004, when one of Estonia's well known contemporary jewelers, Kärt Summatavet, became a client of the incubator, and in September 2006 it was presented for the first time to the Tallinn City Enterprise Board. The City of Tallinn gave the green light for the Creative Incubator and supported it by covering the expenses of planned preparatory projects. From 2010, a support measure was added to develop ESA creative industries support structures. With this assistance the ESA Creative Incubator is able to fund its activities and develop infrastructure. The Creative Incubator generates its own income from the rent of rooms and sales of services and training sessions and businesses are subsidised by up to 75%.

The mission of the Tallinn Creative Incubator is to provide a supportive environment for creative enterprises by initially providing them with incubation services. The main emphasis is to improve the business expertise of creative enterprises and to establish a soft infrastructure by developing mechanisms of inclusion, cooperation and participation and to help enterprises become international.

All enterprises wishing to be included in the incubator must undertake a thorough basic business training course and they are required to compile a business plan. The business plan is assessed by a group of experts and the business is given thorough feedback on their weaknesses and strengths. The entrepreneur defends their business plan before an assessment committee.

Businesses in the Creative Incubator can compensate for their lack of resources (both material and nonmaterial) with help from the incubator and business consultants to develop their business – this assistance can range from business know-how to do with starting and running a business to studio-style rental premises that are below market price. Businesses are included in training sessions, information and network seminars, workshops and educational travel and cooperative marketing events organised by the incubator. With financial support from the incubator, businesses have also had the opportunity to develop their specialist skills through training courses and workshops.

The most popular services provided are business consultations and training, as well as group events ranging from Creative Mornings to cooperative marketing schemes. The incubator's communal rooms are used to host various events, the meeting rooms for holding meetings with clients and internal discussions and the receptionist and postal service, large library and other communal resources are also invaluable.

Since the project began there are five Creative Incubator businesses that have become success stories. Four export their products and services on a large scale, and three have achieved national recognition in the areas of business and design. Five top Estonian designers have joined the Tallinn Creative Incubator. Their international awards and recognition is an encouragement for other Creative Incubator clients.

The success of and need for the Creative Incubator is clearly measured by its popularity. In 2008, 14 creative enterprises wished to join, in 2009 there were 30 and by the end of spring 2010 there were already 40 creative enterprises.

Since the start of the project, Creative Incubator partners have included the Estonian Academy of Arts, Mainor Business School Design Institute, the Estonian Association of Designers and the Estonian Design Centre. Due to its location and common interests, the Baltika Quarter (Baltika is Estonia's largest fashion manufacturer) has also become a partner. In cooperation with Baltika, cluster events are being organized to develop market and sell Estonian design and handicraft products.

The Tartu Centre for Creative Industries was founded on 14 May 2009 on the basis of Tartu City Council decision No. 514. The centre was officially opened on 4 September 2009.

The Tartu Centre for Creative Industries is an umbrella organisation that coordinates the creative industries in Tartu. It shares information about creative industries and provides education and training in the field, and provides legal and business advice to creative businesses, as well as an incubator service. The work of the Centre for Creative Industries is funded by the City of Tartu and

Enterprise Estonia. At least once a year the centre organises a creative industries competition for businesses just starting out and seeking incubation services.

The Centre for Creative Industries is located very close to the city centre in a historically important part of town near a variety of cultural institutions. In 2010 there were nine businesses operating from the Centre for Creative Industries, two galleries and a café. There were 20 businesses in the preliminary- incubation program.

To become a resident of the centre it is necessary to undertake a 2-month preliminary incubation period during which participants learn how to compile a business plan, become familiar with the principles of establishing a business and hear advice from consultants. After successful defence of the business plan it is possible to apply for the incubation service.

Creative businesses can obtain support from the centre in the form of rooms, know-how and various services. Creative businesses can also use the office and studio spaces, fully equipped meeting rooms, Wi-Fi internet and security services. Businesses are continually offered training and an experienced business consultant provides advice about the business plan and overall running of the business. Businesses consider the greatest additional asset to be the inspiring work environment and the benefits reaped from the cooperative work that takes place between the resident businesses.

Creative Estonia is a program launched by Estonian Enterprise and funded by the European Social Fund, which helps promote and develop creative industries and creative businesses in Estonia. The program was established in 2009 and its aim is to:

- Clearly present the content, unique characteristics, economic, social and regional value of creative industries. Create a platform for the discussion of creative industry problems and solutions at the highest level.
- Support beginning and established creative businesses with much needed information and advice. Develop an attitude that creates a positive image of business and to increase the business and export ability of creative businesses.
- Encourage and increase cooperation between creative individuals and the industrial and service sectors, so that the latter learn to make use of the abilities, talents and creativity of creative people with the aim of developing and becoming more competitive.
- Create as many opportunities and channels as possible for the formation of cooperation networks, and the exchange of expertise and information. To present the model of Estonian creative industries to Europe and bring the best European practises to Estonia.

To achieve its aim Creative Estonia clarifies the essence and importance of creative industries to all interested parties. Creative Estonia disseminate news and events in the field via mass, social and industry media, and it's own information channels.

On the Creative Estonia portal it is possible to find information and support material about starting a creative business and guidelines for managing a business. The portal also aims to provide an overview of the creative industry and the events, studies and opportunities for support currently available. Creative businesses are also invited to free marketing seminars organised by Creative Estonia.

Students are an important target-group for Creative Estonia. The essence of creative business is explained to them in an attractive fashion and they are given information about study opportunities both at home and abroad.

Creative Estonia conducts its work with advice from a think tank that includes leaders from creative industries support structures and development centres from the various creative associations. All work is carried out by Creative Estonia along with representatives of the target groups and partners.

Creative Industries Policy in Latvia

Creative industries issues began to enter policy-planning agendas more intensively in Latvia around 2005, following two creative industries studies conducted by international experts. At that time, the Latvian Ministry of Culture inaugurated work on a new long-term cultural policy document, involving both local and a wide range of international experts, as well as national, municipal, government and private organizations.

After introducing creative industries issues in the national cultural policy guidelines, the Ministry of Culture encouraged the inclusion of creative industries matters in all key policy planning documents in Latvia, such as the National Development Plan 2007–2013, the National Lisbon Programme 2005–2008 and the National Strategic Reference Framework document 2007–2013 [1, p.10].

Once creative industries matters were included in all major political papers, a series of conferences was convened by the Ministry of Culture in cooperation with different partners in order to clarify and intensify these issues for a wider audience; for example, the international conference „Creative mind – the best asset” (7 November, 2007), the international conference „Design for the future” (5 October, 2007) [1, p.11].

In 2010, we could point out several positive effects of this policy; for example, the support for the creative industries businesses incubator in Riga (about EUR 2.3 million) from 2009 to 2014, as well as the notable modernization support for all higher education establishments in the arts and culture allocated in 2010 (about EUR 5 million) and many other activities, mostly supported from various EU Structural Fund programmes. These priorities are also supported by the Culture Capital Foundation of Latvia, where a new branch for design and architecture has been established since May 2010.

Latvian Ministry of Culture believes that the economic crisis Europe is experiencing at the moment should not stop the further development of knowledge in creative industries at the local, Baltic and EU level, highlighting culture and creativity, both as a value in itself and explaining culture and creativity as integral aspects of the economy. Similarly, the development of statistical methods as well as research and comparative studies in this field should not be stopped.

It is possible that the gradual evolution of the cultural and creative sector over the last ten years is much more characteristic of the changes in Latvia's economies than the development in any other sector in general, and this fact cannot be overlooked in future planning, even if it is difficult to make clear forecasts. The long-term strategy Latvia 2030 recognizes culture and creativity as important assets for the future development of the country. As many of the examples of good practice in the creative industries are based on „pre-crisis” evidence, it would be sensible to seek a comprehensive assessment of future development potential since the euphoria of the recent growth period in Latvia to facilitate policy planning for the creative industries. Such an assessment should identify how current socio-economic challenges could affect human behaviour, including consumption, and what this will mean for the development of the creative industries. An increased awareness of our own strengths, as well as the potential for regional and international cooperation will help bring future possibilities into focus.

Below are presented the best practices in the creative industries of Latvia.

Hub Riga is considered a nerve centre for change in Latvia. It is designed as a platform for creative and active individuals, organisations and companies from every profession, background and culture to meet and interact with the common goal of affecting change.

Hub Riga has started to play a proactive role in warming up Latvia's economy by offering business incubation services to young enterprises in the creative industries. This programme is supported by the European Regional Development Fund and the Latvian State and provides young creative enterprises with financial support during their first years of operation. This support includes partial compensation for administrative, legal, accounting, fund-raising, marketing and rental costs as well as the costs of establishing partnerships and other business processes.

The Hub Creative Incubator is anchored in Andrejsala, a district experiencing promising development, where young enterprises are selecting the most suitable spaces for their offices, workshops, warehouses and production facilities. Existing and new tenants and partners use Andrejsala as a place to meet, exchange ideas, make mistakes, learn, be inspired and share experiences; it is a place to bridge the gap between those making their first steps in enterprise with more experienced businessmen, artists, thinkers and other personalities.

The Hub is collaborating closely with likeminded organizations and individuals, including the British Council, Jaunrīga real estate developer, the Nordic Council of Ministers, Riga City Council, the Latvian Culture College, Riga Arts Space and other local and international organisations, institutions, educational establishments, youth movements, NGOs, and others.

Art centre „kim?” - the pilot project „kim?”, inaugurated by the Latvian Museum of Contemporary Art, is an interdisciplinary arts centre in Latvia dedicated to contemporary culture. Situated in the historical Spikeri district in Riga, „kim?” organizes monthly exhibitions in its three galleries and provides local and international audiences with a complementary programme of regular lectures, film screenings and performances.

Since opening on 16 May 2009, until spring 2010, „kim?” has organized an exciting programme of 103 cultural events and attracted more than 36 000 visitors.

The target group for „kim?” includes art professionals (artists, curators, critics, journalists), creative industry representatives, students and tourists. Using the synergy between different fields of contemporary culture, „kim?” aims to promote the emergence of a new, intellectually and emotionally receptive audience gradually increasing its interest in different expressions of contemporary culture.

In terms of funding, „kim?” regularly applies to numerous international and local grant schemes as its primary source of financing. Other sources include the Ministry of Culture, corporate sponsors and self-generated income through rent and merchandising.

Creative Industries entrepreneurs are among the most active and loyal visitors to „kim?”, as „kim?” promotes formal and informal education at all levels, stimulates interest in contemporary culture and provides venues for people to spend quality free time.

Creative Industries Policy in Lithuania

The concept of creative industries has been considered in Lithuania since 2003, when the first studies in this field were conducted. The Strategy for the Promotion and Development of Creative Industries was prepared and approved in 2007.

In 2009, as a result of cooperation between the Ministry of Culture and the Ministry of Economy, the concept of creative industries was included in the Lithuanian Strategy for the use of EU Structural Funds for 2007–2013 and in the Operational Programme for Economic Growth. As the Ministry of Culture and the Ministry of Economy were seeking to define specific measures targeted at the promotion of creative industries in Lithuania, it was decided that an arts incubator network should be established in Lithuania next to the existing business incubator network, and that funding from EU structural funds should be allocated for the development of this new network. Funding for nine arts incubator projects has been allocated until 2013, according to the EU Structural Funds measure „Assistant 2”, which is administered by the Ministry of Economy. The budget for the program is approximately 17 million euros [1, p.13].

The Ministry of Economy has also introduced creative industries into the national innovation policy, clustering programmes and export measures. Until 2010, two creative industries cluster projects was prepared. The Ministry of Economy also provides support for export projects including participation in international fairs. These support mechanisms are also funded by EU Structural Funds.

On the initiative of the association of Cultural and Creative Industries, which includes approximately 40 members, was prepared an opportunity study regarding the National Creative and Cultural Industries Programme. The data presented in the study show that the contribution of creative industries companies to Lithuanian GDP grew from 2 per cent (LTL 2.1 billion) in 2001 to 5.2 per cent (LTL 4 billion) in 2006. According to data provided by the Department of Statistics of the government of the Republic of Lithuania, 6 149 companies with a total of 61 297 employees operated in this sector in 2007. This accounted for 8 per cent of the total number of companies operating in Lithuania and 4 per cent of the total number of employed people in Lithuania. The growth of companies in the creative industries sector was 8 per cent in 2006–2007, and the number of employees in the sector grew 2.8 per cent, which shows that this sector plays an important role in the Lithuanian economy [1, p.14].

Based on the aforementioned opportunity study, the Lithuanian National Programme for Cultural and Creative Industries was prepared and presented to the Ministry of Education and Science in 2009. There is a plan to use assistance from EU structural funds to implement this programme and it aims to specifically support synergy via a system of arts education, cultural infrastructure and creative business. The budget for the programme is approximately 3 mil. euros.

The Head of Strategic Planning Department, from Lithuanian Ministry of Culture, affirms that Creative industries are becoming a major area of regional cooperation as well. When Lithuania held the presidency in the Council of the Baltic Sea States, the conference held by the Nordic Council Ministers Office in Lithuania, the Ministry of Foreign Affairs and the Ministry of Culture on 23–24 February 2010 in Vilnius emphasised the need to promote the cooperation of the Baltic Sea countries in the area of creative industries.

Below are presented the best practices in the creative industries of Lithuania.

Community Building Consultants - the public organization „Bendruomenės santykių konsultantai” („Community Building Consultants” or CBC) was established in 2005. The main aim of the organization is the sustainable economic, educational, cultural and social development of communities. In recent years the main direction of its activities has been the development of creative industries. Their target group includes CI representatives and nongovernment organizations that help form cultural policy, and we also cooperate with the Ministry of Culture, the Ministry of Education and Science and the Ministry of Economy.

CBC participated in the development of the Republic of Užupis (a neighborhood in Vilnius, largely located in Vilnius' old town, a UNESCO World Heritage Site), the Užupis Art Incubator and initiated the establishment of the Uzupis Creative Cluster (UCC), which focuses on the creation and development of computer simulation games. In recent years, CBC has developed the following projects and initiatives:

- Qualitative and quantitative CI research in the region of the Republic of Užupis, in which they set out to implement unique CI mapping methodology in Lithuania. The methodology not only reveals statistical CI information and indicators, but also emotional, social and cultural potential. In 2010 started creation of another CI map in cooperation with the Gediminas Technical University in Vilnius. They created the CI map of the Republic of Užupis and are taking part in CI cluster development. They created the online map, which presents CI representatives from different sectors. There are about 130 profiles with information about where people work, what they do and how to contact them.

- CBC consults the Ministry of Education and Science and takes part in preparing the national CI programme. It contributed to writing the feasibility study Creative and cultural industries of Lithuania and the Creative industries national programme. Moreover they are members of the National Creative and Cultural Industries Association, take part in studies related to CI and consult the Ministry of Culture, Ministry of the Economy and Ministry of Education and Science in preparing CI development strategies.

- CBC represents CI clusters in international cluster networks and cooperate with them in various projects. They also consult CI representatives who want to establish CI incubators. They help with access to financing, preparing strategies and integrating into the market – most of the funds they help them access come from the EU. They also write projects as well as fund projects from their own resources.

Republic of Užupis - CBC is involved in developing one of the districts of the old town of Vilnius, The Republic of Užupis, which houses a unique cluster of creative industries. CBC organizes various projects, writes strategies, conducts fundraising activities and mapping and assists in developing social capital in Užupis.

In the course of time, the unique social and cultural capital as well as the purposeful activities of the community have turned Užupis into a creative industries centre, and its influence on cultural, economic and social life has extended beyond the limits of Vilnius and even of Lithuania. Over the years Užupis has become a naturally formed platform for the creative industries cluster.

Table 3. The basic indicators of the Užupis hub

| Indicators | Measurement units | Results |
|---|---|-----------|
| Employees of the creative industry | persons | 300 |
| Businesses based on the marketing of culture and creativity | units | 50 |
| Annual income from CI | EUR | 6 million |
| Creative space | m ² | 10000 |
| Spaces located in (totalling about 350 small and micro companies – advertising, design and architectural companies, publishing-houses, photographic studios, art curators, students of culture and the arts, festivals and so on) | Vilnius Academy of Art, private art schools, galleries and exhibition | |

Source: *Creative Industries in Estonia, Latvia and Lithuania, 2010*

According to recent studies, Užupis is entering a new stage in its development and is assuming new significance not only in terms of entertainment, artistic and cultural contributions, but also in terms of the economic and political life of Lithuania. The cluster of creative industries in Užupis, which formed naturally on the principles of harmonious development, has been in existence in one way or another for over 30 years, and is the first formation of its kind in the Baltic States or even Europe.

The community of Užupis arranges events that unite its members and support their creativity and the commercialization of their activities on a regular basis. The cultural life of Užupis, regulated by symbolic authorizations and agreements, today impacts social, cultural and even business development in the city considerably.

The **Klaipeda Economic Development Agency (KEDA)** - was founded in 2003 by Klaipeda city, initially to focus on city branding and marketing communication activities targeting potential investors in Klaipeda. As of 2007, the agency has also been active in supporting and promoting local cultural and creative businesses through support to creative SMEs, individual artists, institutions and cultural organizations representing the major CI sub-sectors: performing arts, architecture, visual arts, media and video art, design and publishing.

KEDA's main goal is to provide support for the creative industries sector in terms of infrastructure development. In addition, an important part of the service includes providing consultations and practical information, opportunities to advertise on the creative industries digital map and organizing meetings and seminars with members of the local CI support group to share best practices and ideas.

Klaipeda economic development agency has launched a digital map (programmed using Google Earth technology) for Klaipeda creative and cultural industries. In order to promote and foster the creative and cultural sector in Klaipeda, advertising on the map is free of charge. Each sector is distinguished with a different color on the map. Companies simply have to assign their activities to the appropriate category and they will be seen directly on the map. Since 2008, KEDA activities have been financed on the basis of various EU support projects. In 2010, the agency was involved in the following projects in the creative industries:

- The adaptation of a former tobacco factory for creative industries. The development is at „Phase II” (construction);
- Inter-regional cooperation project CITIES – Creative Industries in Traditional Intercultural Spaces – financed by the Interreg IV C Programme to share experience and good practice in the areas of innovation, the knowledge economy, the environment and risk prevention (full project coordination by KEDA).

Menų spaustuvė/ Arts Printing House - is a performing arts venue aiming to be the first infrastructural complex for the creative industries in Lithuania, where performing arts, business and education can meet to inspire each other. Established in a former printing house dating back to 1585, it produces and hosts creative phenomena including but not limited to theatre, dance, music, new circus, cinema and other forms of art. It supports performing arts NGOs providing them with space for offices, rehearsals and performances.

Activities in the current premises of Menų spaustuvė started prior to the establishment of the organization in 2002. Independent NGOs (such as the Theatre and Cinema Information and Education Centre and the Lithuania Dance Information Centre) started out in a neglected building with new drama and contemporary dance projects that had no opportunities elsewhere.

From the outset, Menų spaustuvė was involved in supporting and promoting independent and emerging artists as well as new forms of contemporary arts in Lithuania. It works in the fields of contemporary drama and new writing, contemporary dance, contemporary opera and new circus. The scope of the projects consists of small festivals, educational projects, productions and coproductions. It is also built to serve as a residential base for pre-production, production and post-production activities for performing arts organizations.

There are two types of target groups: artists and artistic organizations as well as audiences. The artistic organizations can be narrowed down to a pool of non-government non-profit performing arts institutions (formal and informal) inaugurated in the past decade.

Menų spaustuvė provides low-cost rehearsal, performance and office spaces, and administrative, technical, managerial, financial, accounting and public relations support for arts organizations. Financing bodies include Vilnius City Municipality, the Ministry of Culture of the Republic of Lithuania, the Culture Support Fund of the Republic of Lithuania and the private enterprise Vilniaus energija. Menų spaustuvė is a member of IETM (Informal European Theatre Meeting) and TEH (Trans Europe Halles). It hosted the plenary meetings for TEH in 2007 and IETM in 2009.

CONCLUSIONS.

The Baltic region has already made significant progress in nurturing its creative industries and developing a broader creative economy. It is also clear that the creative industries provide an opportunity to grow more quickly from the downturn, lifting the Baltic region into growth once again.

Yet to date, strategy and then policy for the creative industries is underdeveloped across the Baltic region. Sector definitions are not settled. Policy options are under-formulated. Senior political and strategic figures seem unconvinced of the merits of a „creative approach” or of the type of value it will deliver to the economy and wider society.

For the Republic of Moldova, these countries can serve as a starting point for the development of creative industries with the good practices they have implemented in their countries. Thus, we can mention that funding at state level and international programs can increase the growth rate of creative industries in the coming years. At the same time, the construction of hubs and creative clusters can bring together people at different stages of the development of their businesses, which indirectly can increase their capacity to create.

BIBLIOGRAPHY:

1. Creative Industries in Estonia, Latvia and Lithuania, 2010, [quote at 20.04.2018]. Disponibile:
http://www.esa.ee/cms-data/upload/files/CreativeIndustries_EstLatLit.pdf
2. The Economic Contributions of Copyright-based Industries in Latvia, 2005.
3. Creative industries research. Actualization of statistics, 2008.
4. Creative industries mapping document in Alytus and Utena counties, 2005.
5. Lithuanian Creative and Cultural industries, 2009.
6. Mapping and Analysis of Estonian Creative Industries, 2005.
7. Unimedia - portal of news, [online], [quote at 20.04.2018]. Disponibile:
<http://unimedia.info/stiri/infografic-are-moldova-industrie-creativa-care-sunt-sectoarele-industriei-creative-si-care-este-contributia-industriei-creative-in-economia-tarilor-din-regiune-138348.html>

EUROPEAN STRATEGIES FOR THE INTEGRATION OF NATURAL CAPITAL IN THE PROCESS OF ECONOMIC GROWTH

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Abstract. The concept of sustainable development belongs to the new theory of economic development, itself a relatively new branch of the general economic theory that separated and individualized itself as an autonomous theoretical body in the 1950s and 1960s. Although generous and undercover on the themes it issues, it consistently sends out the demonstration objectives in sociology, philosophy, ethics, morals, law, etc. the theory of economic development and the construction of a minimum epistemological socket; a notional and categorical system in which they use a work and exposes. Natural capital is the spectrum of physical assets within the natural environment that deliver economic value through ecosystem services. Like a savings account, natural capital can pay interest or be liquidated

Key words: strategy, economic growth, natural capital, conservation

JEL CLASSIFICATION: O5, Q43

1. INTRODUCTION

Among the most relevant macroeconomic aspects considered in the analysis of the impact of economic growth on natural capital are: the effects of current economic policy decisions on the welfare of future generations, the consequences of environmental costs on supply and aggregate demand, the variation of economic indicators, environmental and aggregate indicators that reflect the depreciation of stocks and flows of natural capital and also provide broader welfare interpretations than those reflected by GDP per capita developments. Particular attention is paid to economic sectors where energy consumption is high, which analyzes the intensity of pollution, resource efficiency (e.g. the amount of energy used per unit of GDP) and how the environmental impact can be reduced.

2. OBJECTIVES OF THE EUROPEAN UNION'S POLICIES ON THE CONSERVATION OF NATURAL CAPITAL

The European Commission's strategy to support sustainable economic growth includes the development of green energy use, energy security and substantial transformation in industry.

Among the relevant documents is the Europe 2020 Strategy, whose three main priorities are:

- smart growth- the development of a knowledge and innovation-based economy;
- sustainable growth- promoting a resource-efficient, greener and more competitive economy;
- inclusive growth- promoting a high-employment economy able to ensure economic, social and territorial cohesion.

Economic analyzes of climate change have the level of spending needed today to avoid the costs that global warming will require in the future. For \$ 1 billion in 2007, for example, with an interest rate of five percent, the cost of 2117 is \$ 7.6 billion, as this is the total that, with a five-percent, would increase to one billion dollars in a hundred years. On the basis of such calculations, opinions have been formed that saving the amounts currently allocated to combating the effects of climate change would enable them to be allocated more efficiently in the future. Only the amount of climate change losses in the considered period is calculated to reach a level up to seven times higher.

Also, Strategy 2020 aims to provide customers with an opportunity to achieve sustainability under the generic label "20x20x20"

- reducing greenhouse gas emissions by 20%
- growth of energy efficiency by 20%, or decreasing of energy consumption by 20%;

Particular attention to decades of energy use is justified by both the finite nature of fossil energy resources and the high impact it produces on the environment. As a result, essential changes to the primary energy use model have become inevitable, and the evolution of fossil fuel prices and the desire of states to achieve energy independence are pressures in this regard. In view of this, it is increasingly evident that there are no urgent measures to improve the current structure of the project as a result of long-term economic growth.

3. IMPORTANCE OF NATURAL CAPITAL IN THE PROCESS OF ECONOMIC GROWTH

The complexity of the economic growth process leads us to take into account previous interpretations of the influential factors involved. The analysis of how they manifest themselves has revealed the vulnerability of economies to variations in factors such as the population, natural resources, the relationship between production and the natural environment, and pollutant residues. Restrictions due to the depletion or restriction of access to natural resources, starting with the "oil crisis" of the last century, in the field of raw materials or on the protection of the environment, lead us to look at the economic growth from a perspective aimed at obtaining competitive products on the market and which also have a minimal impact on the environment.

Economic growth is seen as one of the main explanations for excessive use and destruction of natural capital. Economists believe two are the most important reasons that can be identified. The first concerns the externalization of environmental costs in both new and old industries. The second reason refers to the production flows necessary for the realization of the material goods and services.

In relation to the interdependence between the level of development and the state of natural capital, the model by economist Simon Kuznets revealed the contradictory nature of the relationship between economic growth and natural resources.

Expenditure to reduce environmental impact is increasing and it is incorporated and reflected in the GDP in various forms. They help to achieve a higher value for this indicator with a share that is not found in goods and services that are intended for unproductive consumption.

Therefore, the increase in the material wealth of the population is diminishing. Looking at the process from a different perspective, economic growth offers instead the possibility of raising the standard of living of the population.

The problem is right in this context, in terms of the marginal efficiency judgment, comparing the increase of the benefit with the increase in the cost. Balances for comparing resources with environmental impact can be the support to be attached to the costs of achieving a strategic objective to increase the efficiency of the use of natural capital. It is therefore not necessary to seek to maximize environmental protection, as it should not be neglected, but an optimal level of effects in the interest of man and society must be found in the comparison of environmental protection and economic growth.

It is a natural tendency for priority resource exploitation of resources of superior quality, involving low extraction costs and high profits. What is not often taken into account in these cases is the relationship between the extraction rate and the decreasing quality of the available reserves, as well as the important environmental implications. A possible measure is to raise prices through taxes, taxes or other administrative tools, but many environmental issues can't be treated as externalities. The irreversible loss of rare plant and animal species as a result of habitat destruction, for example, can't be compensated by the sums of money generated by rising resource prices. The public good character of these rare species makes it difficult to identify ways to measure their value, to be incorporated into the cost and benefits of a project. Models based on Game Theory point out the usefulness of finding a balance between regulatory measures by the authorities of how common goods and taxation mechanisms are exploited.

4. RESULTS AND DISCUSSIONS

4.1. ECONOMIC DEVELOPMENT AND ITS COSTS

Global growth has contributed more rapidly to increasing human needs over the past years and has put pressure on natural resources. As the demand for agricultural and industrial products grew, the quantities consumed increased steadily and the demand structure experienced a constant change. As a result of the social development and rising living standards, the economic urbanization rate has evolved to the detriment of the environment. It has been noticed in this context that the urbanization phenomena are accompanied not only by the concentration of population and significant changes in the geographic space, but also by the modification of the allocation of resources. At the same time, these urban concentrations are important factors of pollution.

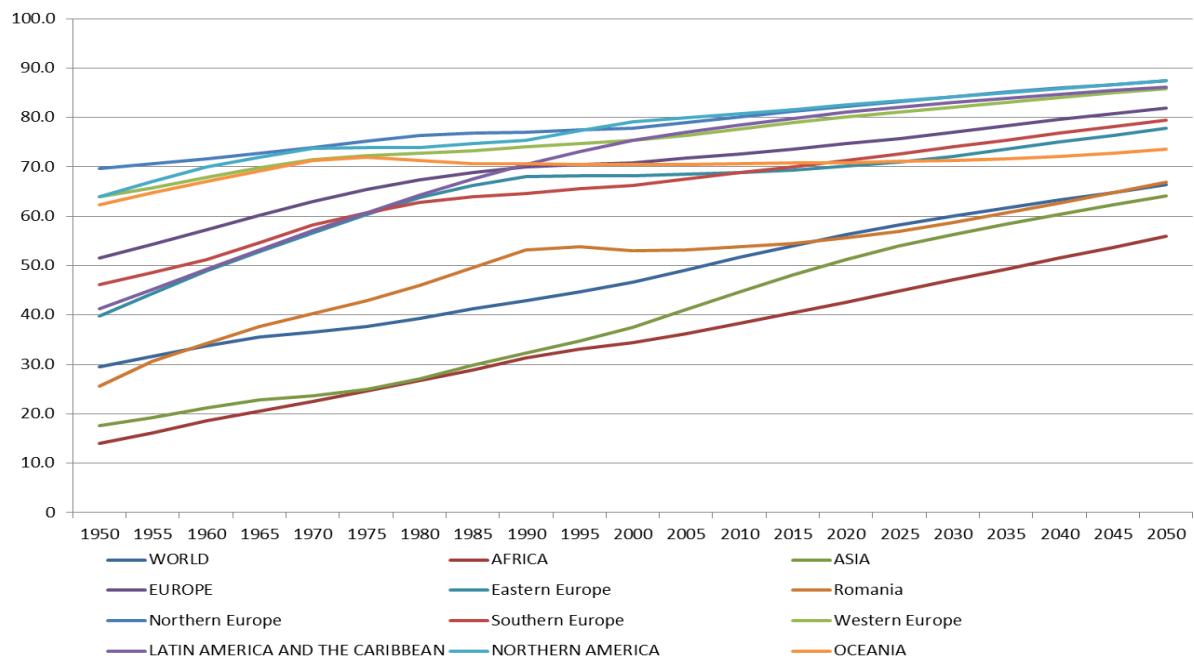


Figure 1- Increase of the degree of urbanization in the period 1950-2050

Source: United Nations Population Fund (UNFPA) (April 2018)

Besides the increased consumption of resources, economic growth inevitably generates pollution, which leads to the search for development paths with the least impact on the environment. The diversification of human needs has led to the inclusion of a growing number of elements from the natural environment amongst the factors of production and a growing amount of energy has been used. The use of energy obtained at relatively low prices from non-renewable sources, mostly fossil fuels, has a major impact on the environment. Economic practice demonstrates the existence of a direct link between economic growth and pollution, as well as the implications of the type of growth in the extent of the impact on the natural environment. Extensive quantitative growth can be gradually replaced as economic growth with a qualitative increase, where the most important weight is the economic efficiency factors.

With the development of the Global Gross Domestic Product, it is expected that environmental pressures will also increase, so that the general concern that the current direction of evolution can't be sustainable unless there is immediate action to combat greenhouse gas emissions and unreasonable resource use.

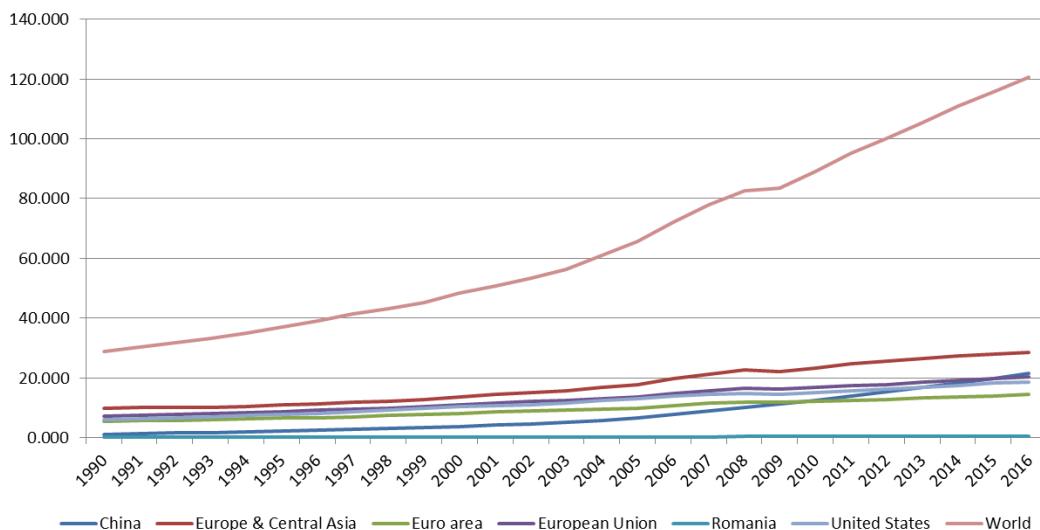


Figure 2- Economic Growth in 1990-2016 (GDP, PPP, Trillion US Dollars)

Source: World Bank (April 2018)

The cost of organic capital increases in relation to the level of environmental degradation, which leads to the persistence of unsustainable negative externalities. Under these circumstances, there is a tendency for industrial production to be relocated to areas in the Globe where, due to lower economic development, environmental protection requirements are lower. Production costs are lower in developing countries, for example, because the market cost of pollution does not amount to the real cost of environmental degradation.

The economic growth of developing countries has led to imbalances in energy, especially as regards demand for non-renewable sources.

To take one example, China became the world's second-largest consumer of energy in 2010, and in the year 2015 it exceeded the US, ranking first. Even under these conditions, the per capita consumption per capita in this country is relatively low compared to the one in the industrialized countries.

Table 1- States with the highest energy consumption (Millions tone of oil equivalent)

| Country | Annual consumption of energy (MTOE) |
|--------------|-------------------------------------|
| China | 3.123 |
| SUA | 2.204 |
| India | 884 |
| Russia | 692 |
| Japan | 437 |
| Germania | 311 |
| Brasilia | 289 |
| South Korea | 288 |
| Canada | 273 |
| Iran | 248 |
| France | 243 |
| Saudi Arabia | 223 |

Source: ENERDATA (2017)

At EU level, it has been taken into account that sustainable development looks at the effects of natural factors involvement in the economic growth process and seeks to reflect the costs of environmental impact in the economic processes. In this context, the benefits of development must

be balanced with social costs, so that the contradiction between growth and the natural environment is resolved by taking the most appropriate option for a certain stage of development.

4.2. GLOBAL IMPACTS OF NATURAL CAPITAL DEGRADATION

Looking further at the market value and utility value of resource prices, it is found that an overall view of the costs of environmental growth is needed. This choice must be seen from the perspective of the cost of opportunity of economic growth.

A huge demand for non-renewable resources will put pressure on global security of supply. At the same time, pollution is generated by increasing greenhouse gas emissions as a result of the use of inefficiently obtained energy by combustion of fossil fuels. In this way are created conditions of manifestation of the negative environmental externalities. The historical evolution has demonstrated the influence of "the type of economic growth on the needs-resources ratio, the natural factors having a major contribution to achieving the extensive economic growth in a period of relative abundance and the necessity and possibility of sustaining an intensive economic growth with the maintenance and enhancing the ecological balance.

Industrial economies have a high consumption of natural resources as a common feature, leading to a continuous and widespread degradation of the environment. It has become a necessity to replace the current unsustainable model with one based on increasing energy efficiency, on the widespread use of renewable energies and the abandonment of fossil fuels and on regional energy cooperation. These measures must be added without delay to deforestation and to reduce the environmental impact of industrial activities. Increasing energy efficiency is a priority objective and saving offers serious potential in this respect.

Table 2- The structure of energy imports into the EU

| Energy form | Weight |
|--------------------|---------------|
| Oil | 60% |
| Natural Gases | 26% |
| Solid fuels | 13% |
| Renewable sources | 1% |

Source: Eurostat

Despite the economic crisis, energy demand is on the rise, supported by infrastructure development. The context is unfavorable to the EU, as energy imports have increased from 46.7% in 2000 to 52.7% of total consumer demand in 2010.

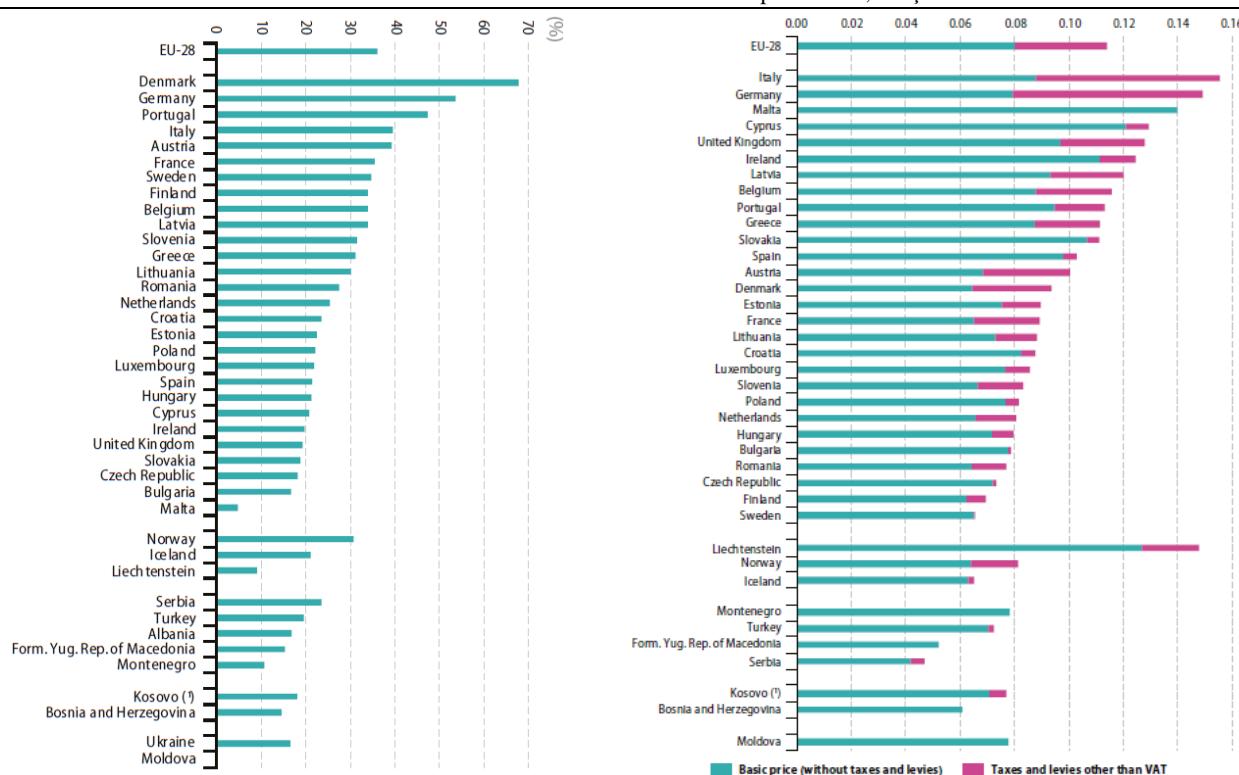


Figure 6- Share of taxes in electricity prices in EU countries (left-handed households, industrial consumers on the right)

Source- European Commission, "Energy, transport and environmental indicators "(2017 edition)

5. CONCLUSIONS

By maintaining the current economic growth model, the planet's energy future is unsustainable. The forecasts indicate that, following the current evolution of emissions and energy consumption, this model can't be sustainable on a global scale. The two major energy threats are not to have adequate and safe sources of energy at affordable prices and to the environmental damage caused by too much consumption. On the one hand, the rise in energy prices always reminds us of the essential role that affordable energy plays in economic growth and human development. On the other hand, it is obvious that the current energy supply pattern carries the threat of serious and irreversible damage to the environment - including global climate change. As a result, government policies on energy taxes are the way to reconcile energy security and environmental protection objectives. The needs to limit the increase in fossil energy demand, to diversify sources of fuel supply and to mitigate emissions that cause climate change by taxing is one of the ways in which natural capital.

REFERENCES:

1. Becker, G., Posner, R. (2015), *Feeling out of the ordinary*, Bucharest, Romania: Publishing House.
2. Blaug, M. (2007), *Economic theory in retrospect*. Bucharest, Romania: Didactic and Pedagogical Publishing House.
3. Bran, F. (2002), *Degradation of ecosystems (forestry and tourism): economic implications*. Bucharest, Romania: Publishing House of the Academy of Economic Studies.
4. Bran, F. (2013), *Entropy approaches to capitalizing on natural resources. From principles to strategies*, Bucharest, Romania: Economic Publishing House.
5. Câmpeanu, V., (2004), *European and global dimension of sustainable development*. Bucharest, Romania: Expert Publishing House
6. Ciobotariu, V., (2008), *Pollution and environmental protection*. Bucharest, Romania: Economic Publishing House.
7. Cohen, D. (1997), *Wealth of the world, the poverty of nations*. Bucharest, Romania: Economic Publishing House

8. Constantinescu, N. N. (1976), *Economy of Natural Environment Protection*. Bucharest, Romania: Politica Publishing House.
9. Dornbusch, R., Fischer, S., (2007), *Macroeconomics*, Bucharest, Romania: Economic Publishing House
10. Negrei, C. (2004), *Economy and Environment Policy- Revised Edition*. Bucharest, Romania: Publishing House of the Academy of Economic Studies.
11. Ostrom E. (2007), *Governing common goods*, Bucharest, Romania: Polirom Publishing House.
12. Pohoată, I. (2003), *Economic philosophy and sustainable development policy*, Bucharest, Romania: Economic Publishing House
13. Soroceanu, V. (2000), *Economic growth and the natural environment*, Bucharest, Romania: Economic Publishing House.

THE RECIPE FOR SUCCESS IN THE ERA OF KNOWLEDGE ECONOMY: MOTIVATING EMPLOYEES TO BECOME BRAND AMBASSADORS

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Abstract

The accelerated development of technology and the globalization of economy force employers to value more skilled employees whose tacit knowledge is difficult to imitate by competitors. Scholars from different fields agree on the importance of attracting and retaining talented employees to gain competitive advantage. Thus, in today's economy, organizations are trying to build a strong employer brand to attract as many applicants as possible through recruitment campaigns. However, it seems that employee branding does not have the same attention from researchers like employer branding, focusing more on the influence that employees can have on the corporate brand than on the reputation of the company as an employer. The purpose of this paper is to identify, based on literature analysis, the ways in which employees can be persuaded to become brand ambassadors in order to attract candidates with rare skills and knowledge that can make the difference in the era of knowledge economy. We have developed a 'recipe' for success that contains six practices that can be used by employers in order to turn simple employees into employer brand ambassadors. The paper discusses about how these practices can be applied and how current employees can help transform a company into an 'employer of choice'.

Key words: *employer branding, brand ambassador, brand experience, knowledge economy, retention, affective commitment.*

JEL CLASSIFICATION: J 63, M 31, M 53

INTRODUCTION

In today's economy, organizations whose performance depends directly on employees' knowledge must strive to differentiate themselves in the labour market in order to attract talented employees. Practitioners are trying to use employee branding for attracting skilled applicants [1, p. 65]. However, literature focuses more on employer branding and on rewards and benefits packages without paying too much attention to how employees can be turned into brand ambassadors by sharing their experience. Due to the development of the Internet and social media, the voice of ordinary people has a greater power than that of journalists or personalities. That is why organizations should take advantage of the opportunity to promote their employer brand through their own employees, who will not only attract skilled candidates, but will also strengthen their affective commitment, which will contribute, in the long run, to increasing the performance of the organization as a whole.

Background

The term of knowledge economy was popularized by Peter Drucker in 1969. In his book 'The Age of Discontinuity' he argues that the human capital is a productive asset and that knowledge is more important than financial assets, physical or natural resources. [2]. In 2004 Powell and Snellman [3, p. 201] define the term of knowledge economy as 'production and services based on knowledge-intensive activities that contribute to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence'. Therefore, attracting skilled employees is not enough if organizations want to remain competitive. Due to technological and business changes, companies should invest in the professional development of their employees. But is the investment profitable, given that employees can leave the organization anytime?

When a good employee leaves the company, he leaves behind technology, but takes with him his experience and knowledge. In such case the investment in employee skills development is lost and technology is useless if there are no people able to use it. Therefore, organizations have begun to give increasing importance to knowledge management [4, p. 173] in order to keep a part of tacit knowledge within the organization. Investing in professional development of employees involves an investment in improving the knowledge and skills the employer can use to achieve organizational goals and increase performance [5, p. 328]. Furthermore, given that employees are more interested in developing their career than being loyal to their employer [6], as long as the organization will invest in the professional development of individuals, they will be devoted to the company. The affective commitment leads to the increasing engagement in achieving the organization's goals. Moreover, sharing positive workplace experiences will make the employer brand stronger and will help attract more potential candidates for whom career development opportunities are a decisive factor in choosing an employer.

The main purpose of any organization should be to become an 'employer of choice', because capable and satisfied employees lead to satisfied customers and to a successful business. To achieve this goal, human resources managers use people's preferences for employment benefits to segment the labour market and to develop particular bundles of benefits [7]. However, for knowledge workers the tangible benefits are no longer a priority [6]. The experience and the possibility of continuous learning are more important because they increase the employability of individuals on the labour market [8]. Information about intangible benefits can be transmitted most efficiently to potential candidates by current employees, who apparently do not pursue a certain purpose by disseminating information and are, therefore, a more credible source.

Employer branding is more complex than corporate branding. In the latter case, the goal is to attract as many customers as possible. On the other hand, employers' branding strategies aim to attract the most suitable knowledge workers who will remain loyal to the company for a long time. Therefore, the quality of the candidates is more important than their quantity. Employees can have some friends in their membership groups who share the same beliefs and values and have the same level of skills and knowledge. Hence, through employees, the company can attract the candidates it needs.

Employer branding versus internal branding and employee branding

Competition in the labour market is getting bigger, so organizations should use marketing strategies not only to sell their products or services, but also to sell their jobs and create a strong employer brand. The employer brand is 'the package of functional, economic, and psychological benefits provided by employment, and identified with the employing company' [9, p. 187]. It represents the organization's image on the labour market [10]. Employer branding means all the actions taken by an organization to promote and differentiate itself as an employer both inside and outside the company [11, p. 501].

Employer branding literature focuses on how organizations should promote their image on the labour market to attract the best candidates without taking into account, unfortunately, the behaviour of current employees. On the other hand, internal branding focuses on how employees can be motivated to provide consumer satisfaction and contribute to the organizational objective achievement. [12, p. 404] Also, the internal marketing theory suggests that companies should use marketing tools to satisfy internal clients (employees) so that they, in turn, to be motivated to satisfy the needs of external customers [4, p. 454]. However, in the academic literature there is a little evidence about how current employers can contribute to the delivery of employer brand value proposition to the potential candidates.

A study conducted in five different organizations demonstrates that attributes considered attractive by employees vary from one organization to another. The researchers classified these attributes into four categories: employment, organizational success, construct external image, attributes of the product or service. Attributes related to employment were about work environment, challenging tasks, reward policies (tangibles and intangibles benefits), management style (meeting

the needs and expectations of employees, bureaucracy level), employee-employer relationship (levels of trust). The organisational success was seen as a very important attribute. However, employees from different organizations perceive differently this attribute. Some of them consider that an organization is successful due to its popularity and profitability, others perceived the success in terms of the company's ability to deliver brand values, the position of the market or the practical relevance of their work [13].

However, the study does not refer to the willingness of employees to become ambassadors for the employer brand, but only for the product and service brands. A good image on the consumer goods market can foster a good image on the labour market, but not necessarily. A good product that is successful on the market can not guarantee that the company is also a good place to work.

Miles and Mangold define the employee as `the process by which employees internalize the desired brand image and are motivated to project the image to customers and other organizational constituents` [14, p. 68], which also include potential employees. The projection of the desired image of the employer brand is possible only if employees perceive it properly and it is consistent with their workplace experience. Therefore, both parties should respect the psychological contract. First of all, the organization should let the employees know their expectations and make possible their fulfilment. If the company meets the expectations of employees, then they will make efforts to fulfil their contractual part.

The recent study shows that even the work satisfaction is high employees do not promote the employer's brand to their friends or other people who might be potential candidates. The study was conducted in a multinational company operating in France, Germany and Russia. Researchers investigated four dimensions of employee behaviour on social media: word of mouth, endorsement, sharing and culture. The study highlights the reasons why employers had a low brand engagement on Facebook and Google+, the platforms most used by them. First, employees do not understand correctly the social media strategy of their company or do not care about it. Second, employees were not aware of the importance of their activities in social media. Third, employees tried to separate the professional sphere from the private one. Researchers have found that the French employees are trying to separate their private life from their professional life in order to maintain the work-life balance. On the other hand, in Germany, the interrelations between private and professional life are frequent, especially among Generation Y employees [1].

Another study, conducted in five major hotels in Thailand, revealed that organizations need to explain their brand strategy to the employees and how they could contribute to the brand success [15]. Therefore, the first step in motivating employees to become ambassadors for the employer brand is to explain as clearly as possible what the organization is expecting from them and what is the employer brand image that employees should project to stakeholders. However, employees can not be forced to act in a particular way in their private lives.

MATERIALS AND METHODS

The starting point of this study is that in the knowledge economy era, employers must struggle to attract and retain the most talented employees in order to use their skills and knowledge. Thus, organization should use marketing techniques and strategies to build a strong employer brand and turn employees into brand ambassadors.

Consider that there is a little evidence in the academic literature about the employee branding, the aim of the paper is to develop a set of practices that should be used by employers in order to motivate employees to become brand ambassadors not only for their products or services, but also for jobs they provide, their internal products. The voice of the satisfied employees can be the most effective tool for attracting valuable candidates, which leads to gaining competitive advantage both on the labour market and on the consumer goods market.

To achieve the proposed goal, we selected and analysed conceptual and empirical studies from different fields – marketing, human resources management, organizational behaviour, psychology. The studies were selected from the following databases: scholar.google.ro, Elsevier

and Springer, using the following keywords: employee branding, employer branding, branding ambassador, branding strategies, knowledge economy, retention, talents, competitive advantage, affective commitment.

RESULTS AND DISCUSSIONS

Based on the analysis of the academic literature, we have developed six practices that can be used by employers in order to turn simple employees into brand ambassadors.

1. Creating memorable experiences that employees might want to share

In the era of knowledge economy, the prosperity of a company is based on the ability of employees to meet their customers' needs, either directly through the provision of services or indirectly, through the use of their knowledge and skills to create the products that customers need. Talents can be attracted by an employer through traditional marketing strategies and human resource management tools, but they are used by most competitors. Given that at a certain level labour market offers are similar, differentiation can be made through experiential marketing strategies. Organizations have to create unique experiences by encouraging socialization, organising memorable events, trainings, team-buildings which employees may be motivated to share with potential candidates. Considering the social identity theory [16], which states that the members of a group are socially and psychologically similar, we argue that sharing the positive experiences of the employees within the group they belong to can attract potential candidates that share similar values with current employees and have a similar level of professional training. Furthermore, the word-of-mouth is the cheapest promotion tool, but also the most credible, because the information is based on experience.

More and more people ask for an opinion on Facebook's private groups about a particular employer. Organizations can not control the dissemination of information. To promote product or service brands, companies can use the help of online influencers, but in the case of employer brand it is a bit difficult. One person can try a wide range of products and services and then share his experience. But when it comes to employers, changing it can not be done as often as gloves. Therefore, companies should aim to satisfy current employees and to motivate them to share their positive work experiences. Thus, by promoting the employer-branded word-of-mouth, the company will enjoy visibility and attract candidates who, perhaps, share the same values as current employees.

2. Explaining the employer branding strategy and the role of employees

Some employees may not be aware of the importance of their private life behaviour on the employer brand. That is why companies should explain how employees can contribute to organizational success, which could increase in their involvement and strengthen affective commitment.

Furthermore, managers should ensure that employees understand and perceive the employer branding strategy correctly. The value proposition of the employer brand must be developed on the basis of organizational culture, the quality of products or services, and the quality and characteristics of employees that the organization has. The value proposition must also be in line with organization's product or service branding strategies [11, p. 502].

3. Encouraging employee activity on social media

Employers are represented in social media through their employees. The activity of the employees on social media can affect the organization's brand image on the labour market. Scholars argue that the private behaviour of the employees can be an opportunity, but also a risk. There are a lot of employees that do not follow their employer page on social media and, hence, they do not share the companies' ads and do not recommend the organization to potential job candidates [1, p. 64]. Sometimes the lack of any activity can be negative because the employee's friends might think: Why does not he post the employer's name, is it ashamed?

The lack of employee interest in promoting the employer on social media can be influenced by the fact that companies do not have a consistent activity on social networks. For example,

Autoliv from Brasov has more than 11,300 employees, but not even 10% of them follow the company's Facebook page [17]. Even worse is that a large number of former employees post negative comments and the company does not react in any way. Moreover, the company is not active even in forums dedicated to employee-employer relationships, as is the forum on the undelucram.ro platform.

Therefore, companies should develop a social media communication strategy that is consistent with brand strategy and communicate it to employees as well. If they understand the communication strategy and their role in promoting both the corporate brand and the employer brand, then they will feel that they contribute to organizational success and will invest more time for this activity. Beside this, employees should be trained on how they should mention their employer so that it does not affect negatively the image of the company.

Companies can not force employees to „like” of follow their page on Social Media, but they can distribute photos from work, training, fun activities and tag employees. All posts should indicate that the company is a good place to work. In addition, posts should be relevant and easy to share [1].

4. Rewarding Brand Ambassadors

Employees do nothing for free. There is no need for financial rewards. Studies show that they appreciate more psychological rewards than financial ones [1]. Therefore, public recognition of the merits of some employees for organizational success or for attracting high value employees can have a considerable impact on employees' motivation and affective commitment.

5. Promoting the employer brand within the organization

Behaviour of private-sector employees influences both the corporate brand and the company's image as an employer. That is why employers should strive for employees to internalize the company's values and to convey the image desired by the employer to all stakeholders. Furthermore, the internalisation of company values gives the individual a sense of belonging. A high degree of high affective commitment contributes to motivating him to participate actively in achieving organizational goals.

6. Fulfilling the psychological contract

If in the past the psychological contract involved an exchange between job security and employee loyalty, today employees are no longer interested in job security, given the frequent changes in the economic environment, but in professional development and work-life balance. That is why the organization should respect the promises included at the time of hiring in the psychological contract. The employer should give them opportunities for development and continuous learning, so that the employee has a high level of work satisfaction.

CONCLUSIONS

In today's economy employees have more power than ever before. They have knowledge and skills for which organizations fight on the labour market, but also they have the power to attract or chase away potential candidates. Due to the development of the Internet and social media, employee's opinion has become very important for potential candidates. Therefore, companies should focus on how they could motivate employees to become ambassadors not only for product or service brands but also for the employer brand.

The recipe for success that we have developed contain six practices that can be used by employers in order to turn simple employees into brand ambassadors, namely: creating memorable experiences that employees might want to share; explaining the employer branding strategy and the role of employees; encouraging employee activity on social media; rewarding brand ambassadors; promoting the employer brand within the organization; fulfilling the psychological contract. Generally, branding practices should be adapted from one country to another because of cultural differences. Given that these practices have been designed based on theoretical and empirical studies from different countries, except Romania, in order to complete this `recipe` with others

effective employee branding practices applicable in Romanian business environment, empirical research is needed among Romanian employees.

REFERENCES

1. CERVELLON, M.C., LIRIO, P. 'When Employees Don't 'Like' Their Employers on Social Media', *MIT Sloan Management Review*, Vol. 58, No. 2, 2017, pp. 62-70.
2. DRUCKER, P.F., *The age of discontinuity. Guidelines to Our Changing Society*. New York: Harper&Row, 1968, 380 p.
3. POWELL, W.W., SNELLMAN, K. 'The Knowledge Economy', *Annu. Rev. Sociol.*, Vol. 30, 2004, pp. 199–220.
4. AHMED, O.K., RAFIQ, M. *Internal Marketing. Tools and concepts for customer-focused management*, Oxford: Butterworth-Heinemann, 2002, 299 p.
5. BIRD, A. 'Careers as repositories of knowledge: a new perspective on boundaryless careers', *Journal of organizational behaviour*, Vol. 15, 1994, pp. 325-344.
6. CAPPELLI, P. 'The New Deal at Work', *Chicago-Kent Law Review*, Vol. 76, 2000, pp. 1169-1193.
7. MOROKO, L., UNCLE, M.D. 'Employer branding and market segmentation', *Journal of Brand Management*, Vol. 17, 2009, pp. 181 – 196.
8. KANTER, R. M. *When Giants Learn to Dance: Mastering the Challenges of Strategy, Management and Careers in the 1990s*, New York: Basic Books, 1989, 416 p.
9. AMBLER, T., BARROW, S. 'The employer brand', *Journal of Brand Management*, Vol. 4, 1996, pp. 185-206.
10. COLLINS C.J., KANAR, A. M. 'Employer brand equity and recruitment research', in D.M. Cable, K.Y.T., YU, (ed.) *The Oxford Handbook of Recruitment*. Oxford: Oxford Univ. Press, 2013, pp.284-297.
11. BACKHAUS, K., TIKOO, S. „Conceptualizing and researching employer branding". *Career Development International*, Vol.9, No. 5, 2004, pp. 501–517.
12. FOSTER, C., PUNJAISRI, K., CHENG, R., 'Exploring the relationship between corporate, internal and employer branding', *Journal of Product & Brand Management*, Vol.9, No. 6, 2010, pp. 401-409.
13. MAXWELL, R., KNOX, S. 'Motivating employees to „live the brand”: a comparative case study of employer brand attractiveness within the firm', *Journal of Marketing Management*, Vol. 25, No. 9-10, 2009, pp. 893-907.
14. S.J. Miles and G. Mangold, A. 'Conceptualization of the Employee Branding Process', *Journal of Relationship Marketing*, Vol. 3, no. 2-3, 2004, pp. 65-87.
15. PUNJAISRI, K., WILSON, A., EVANSCHITZKY, H. 'Internal branding to influence employees' brand promise delivery: a case study in Thailand', *Journal of Service Management*, Vol. 20, No. 5, 2009, pp. 561-579.
16. TAJFEL, H., TURNER, J. C. 'The Social Identity Theory of Intergroup Behavior', in J.T. Jost, J. Sidanius (Eds.), *Key readings in social psychology. Political psychology: Key readings*, New York, NY, US: Psychology Press, 2004, pp. 276-293.
17. ***, <https://www.facebook.com/pages/Autoliv/104462136316253>, online, consulted on 12.03.2018.

SECȚIUNEA III: **Evoluțiile financiare contemporane**

MANAGEMENT OF BANKING PERFORMANCE AND OPTIMIZATION THE COST OF FINANCING ECONOMIC ENTITIES

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Abstract. *The majority of banks have as their primary purpose to obtain a higher profit with minimal risks. This goal can be achieved only in the case of a modern and efficient banking management system. This paper compares the situation in the banking system of the Republic of Moldova with other countries in the region. The analysis is carried out in the light of a set of comparable conventional indicators. Thus, it was analyzed the causes of so modest integration of the banking system in the national economy, the high cost of loans, factors that hinder companies' access to bank loans and finding ways and solutions to optimize banking management. From the international practice, the domestic banking system has to make many changes from the point of view of banking supervision, absorption of losses, effective monitoring tools, de-offshorisation of the banking sector, etc.*

Key words: management, banks, risk, funding, optimization.

JEL CLASSIFICATION: E40, E42, E43, E52, E58, G20, G32, G33.

INTRODUCTION

As an integral part of the banking system, any individual bank and any banking system collectively assumes certain risks. This research focuses on the most important moments of the financial management and its importance, as well as on the optimization of the cost of financing the economic entities by the Moldovan banks. In order to analyze bank's performance, including its cost-effectiveness, it is necessary to make a fair assessment and an assessment of any major changes to the economic resources that it might control in the future. The performance of the banking system reflects the efficiency of mobilization and capital allocation as a whole but also in particular, for this purpose, banks must mobilize domestic savings, allocate investment funds to contribute to structural changes in the economy and to increase productivity, facilitate payments so that the market can operate at low costs, and find the right correlations between efforts and effects, ie efficiency and effectiveness.

The aim of the research is to analyze bank performance management and optimize the cost of financing economic entities, in order to highlight strengths and weaknesses, the state of health or financial weakness of banks as well as the potential of financial management.

In order to achieve the proposed goal, the following objectives must be reached:

- to analyze the bank performance management concept;
- to study the current situation of the domestic banking system and comparison with other European and Baltic countries;
- to elaborate a set of banking performance indicators and identification of ways to optimize the cost of financing the economic entities by banks.

MATERIALS AND METHODS.

The doctrinal sources and the methodologies of the international bodies were the basis of the elaboration of the research methodology. Were used the following research methods : the analytical

method, which has reached the essence of the investigated processes, system analysis method, descriptive method, logical framework method, and the benchmarking method.

Information support is provided by legislation and normative acts in the field of Bank Performance Management in the Republic of Moldova, reports and publications of the National Bank of Moldova (NBM), the National Bureau of Statistics (NBS), reports of commercial banks and international organizations: the World Bank, the International Monetary Fund (IMF) and others. In order to achieve the proposed objectives, were used statistical methods, data collection and data processing from the National Bank of Moldova (NBM), data from the World Bank's electronic library, financial reports of domestic and foreign commercial banks, media publications, as well as other legal and statistical publications related to the subject of research. It also were used comparative analysis with the elaboration of the graphs of the most important financial indicators and the use of the deductive method of the assumptions and conclusions.

RESULTS AND DISCUSSIONS.

The evolution of the banking performance concept has its origin in the concept of efficiency. In this context, the evolution of the banking performance concepts will be addressed in the doctrinal and legislative aspect. Depending on the periods covered, the concept of performance takes different forms such as productivity, adaptability, effectiveness etc. The concept of performance is increasingly being used on a large scale of activities, and depending on this is associated with success, growth, effort. [11]

In terms of banking, performance is associated with creating added value, an optimal cost-benefit ratio. Being required to invest in new technologies, it has implicitly led to increased risks and thus the link between performance and risk has become inextricably linked.[8]

According to the explanatory dictionary of the Romanian language, "performance" is presented as a particularly good result. The term "performance" has latin origin and broadly represents the level of achievement of objectives. Performance can be defined as being the measurable level of stability of a bank's business, characterized by low levels of any kind of risk and a normal growth of profits from one analysis period to another. Performance management intersects with that of banking management, quality reflected in bank performance directly linked to the management of bank assets and liabilities, and reflected in its balance sheet and profit and loss account. Performance management is one of the core responsibilities of the organization's leadership, and this is exercised by measuring, developing and executing a set of actions and measures aimed to increase the performance. [4]

Research in this field was carried out within the Independent Analytical Center "Expert-Grup", the National Institute for Economic Research, National Bank of Moldova (NBM), which contributed to the in-depth analysis of the banking system management problem, the assessment of the banking system situation and the proposal for recommendations on its optimization. „Performance management is the set of strategic interventions that have a long-term impact on the organization's performance, resulting in improved economic performance” [15] Across the banking system, the performance is the state of affairs characterized by stability decisions, legislative, monitoring and prudential coordination "of players" [5]

The global performance of a bank characterizes its overall results, it being given by profitability level correlated with the risks taken by the bank concerned [13]. In the literature, the banking performance is expressed through indicators of profitability and financial soundness indicators or risk. Because the control of banking risks is a factor that depends on bank profitability, the interpretation of risk indicators must be made through the causes, consequences and effects on the bank's profitability [8]

In the law on the activity of banks no. 202 of 06.10.2017, Article 41, p.3, it is mentioned that the bank's board has the task of supervising whether performance standards are maintained in accordance with long-term financial interests and with respect to its capital requirement; but in art.

42, p. (3) it is mentioned that the bank's executive body is obliged regularly inform the board about the financial performance of the bank. [1]

Banking performance can be seen from two perspectives:

- from the individual perspective, referring to predefined indicators;
- from a collective perspective, much more complex, which represents an ensemble of structural, legislative actions that contribute to the functioning of the entire banking system.

For the banking system from the Republic of Moldova, a country in transition, adapting to the requirements of the Union's market is a challenge, but especially a need to maintain a special professional development standard in order to cope with competition. This research aims at analyzing the management of the banking performance on the one hand at the macro level by analyzing the evolution of the Moldovan banking system in the context of European integration in terms of the evolution of lending, of the legislation, and on the other hand, the performance of banking institutions, and more precisely the optimization of the cost of financing economic entities and monitoring the default risk. The causes of the last banking crisis in 2014 were: the low level of independence of the NBM, the poor quality of corporate governance in most banks, the low transparency of the final beneficiaries of banking, banks' limited capacity to absorb losses, insufficient monitoring and banking supervision instrument, offshoring of the banking sector. From my point of view, performance in today's banking is influenced not only by the internal factors of the institution, but also by the economic context in which it operates. Increased competition on the market where massive lending requires excessive capitalization without considering potential losses may be for small banks that are making a considerable effort in "keeping up" a cause for lack of performance in the future.

Analysis of the current situation of the banking system in the Republic of Moldova in terms of banking performance

Performance management assessed by the indicators has limited information content requiring standards or benchmarks. In this context, the trends in performance are analyzed and compared with other similar banks over certain time intervals. The National Bank of Moldova, in line with its commitments to development partners, continues to reform the banking sector, focusing in particular on raising shareholders' transparency and increasing attractiveness for new investors, assessing the bank's sustainability and identifying transactions with affiliates. These efforts will also be stimulated by the transition from Basel I to Basel III, as a result, banks will improve their corporate governance system and business governance framework. The main source of profit in banking activity is lending operations. And solving the problem of profitability of the loan portfolio leads to the fulfillment of the purpose of banking management. [3]

Basel II was later developed with the intent to supersede the Basel I accords, and aimed to ensure that the more significant the risk a bank is exposed to, the greater the amount of capital the bank needs to hold to safeguard its solvency and overall economic stability, but Basel III is a global, voluntary regulatory framework on bank capital adequacy, stress testing, and market liquidity risk. The Basel III standard aims to strengthen the requirements from the Basel II standard on bank's minimum capital ratios. In the table 1 are represented the main features of Basel.[3]

Tabel 1 Comparison of Basel I, Basel II and Basel III

| Basel I | Basel II | Basel III |
|--|---|---|
| <ul style="list-style-type: none">- focused on credit risk and appropriate risk-weighting of assets;- Pillar 1- Market risk and credit risk;- focus on a single risk measure;- operational risk not considered; | <ul style="list-style-type: none">- establishing risk and capital management requirements to ensure that a bank has adequate capital for the risk the bank exposes itself to through its lending, investment and trading activities;- Basel II uses a "three pillars" concept: | <ul style="list-style-type: none">- focuses on different issues primarily related to the risk of a bank run;- it introduces requirements on liquid asset holdings and funding stability;- capital ratios and targets:<ol style="list-style-type: none">1. new capital definition;2. new capital buffers; |

| | | |
|--|---|--|
| | Pillar 1 - minimum capital requirements, Pillar 2 - supervisory review, Pillar 3 - market discipline. - Capital requirement: Capital Tier 1 – min. 4% Total Capital – min. 8% - Solvency ratio – 2% | 3. new leverage ratio; 4. higher minimum ratios; 5. systemic add-on. - it introduces requirements on counterparty risk. - Capital requirement: Capital Tier 1 – min. 6% Total Capital – 10,5% - Solvency ratio – 4,5% |
|--|---|--|

Source: own work based on data from Basel Committee on Banking Supervision [6]

The implementation of the new regulatory and supervisory framework will help increase the security and soundness of the banking sector, ie strengthen its resilience to shocks and crises, strengthen internal governance, ensure that banks report all risks and maintain adequate capital both qualitatively and quantitatively, as well as help to provide safer and better quality financial services.[7]

On 31 January 2018, 11 banks licensed by the National Bank of Moldova (NBM) operated in the Republic of Moldova, including 4 branches of banks and foreign financial groups.

To give a general overview of the current situation of the banking system, were analyzed the main financial indicators of the banking system for the period 2012-2017. The stability and the growth rate of profit are the best synthetic indicators of a performance of banks and entire banking system. One of the most efficient tools for measuring and rendering of bank performance is the system of financial indicators. The performance indicators (Table 2) show the situation of a bank at one time, and their interpretation allows managers to take appropriate measures for the proper functioning of the bank in the future.

Tabel 2 The economic and financial situation of the Moldovan banking system

| Indicatori financiari | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Normative Capital (TNC), mil. MDL | 7020,2 | 8167,58 | 9013,85 | 9334,45 | 9651,61 | 10509,2 |
| Risk-weighted assets, mil. MDL | 28794,4 | 35484,9 | 64764,1 | 35476,2 | 32418,3 | 33867,1 |
| Total loans to SMEs, mil. MDL | - | 0 | 0 | 0 | 9125,95 | 11818,4 |
| Amount of write-downs for assets and liabilities, mil. MDL | 2143,9 | 5210,93 | 5970,5 | 4425,14 | 6173,25 | 6600,58 |

Source: own work based on data from NBM [10]

Throughout 2017, banking sector assets continued to grow, capital sufficiency strengthened, banks have high liquidity and profitability. At the same time, the banking sector faced problems related to the share of bad loans in the loan portfolio and is going to make bigger efforts to eliminate bad loans in its balance sheets. Also, the downward trend in lending activity is maintained. At the same time, banks will play a more active role in financing the country's economy.

Tabel 3 The economic and financial situation of the Moldovan banking system

| Indicatori financiari | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total assets / GDP, % | 72 | 76,28 | 84,03 | 56,45 | 54,16 | 53,49 |
| ROA, % | 1,1 | 1,56 | 0,85 | 1,67 | 1,83 | 1,85 |
| ROE, % | 5,6 | 9,42 | 5,86 | 10,16 | 11,12 | 11,07 |
| L1, (<1) | 0,7 | 0,71 | 1,54 | 0,7 | 0,64 | 0,61 |
| L2, (>20%) | 32,9 | 33,76 | 22,48 | 41,73 | 49,3 | 55,48 |

| | | | | | | |
|--|------|-------|-------|-------|-------|-------|
| Base rate of credits, % | 6,5 | 3,5 | 6,5 | 19,5 | 9,5 | 6,5 |
| Sufficiency of risk-weighted capital (>16%) | 24,4 | 23,02 | 13,92 | 26,3 | 29,77 | 31,03 |
| TNC/Total assets, % | - | 10,72 | 9,6 | 13,57 | 13,25 | 13,21 |
| The share of foreign investments in the social capital of banks, % | 71,7 | 72,24 | 77,56 | 82,92 | 81,03 | 81,01 |
| TNC of 5 banks that have the largest capital /TNC, % | 66,5 | 64,15 | 67,48 | 78,84 | 77,79 | 78,12 |
| Debt balance of net non-performing loans /TNC, % | 14,5 | 16,59 | 14,26 | 14,96 | 18,87 | 17,86 |
| Assets of the five largest banks/Total assets, % | 70,4 | 70,43 | 75,85 | 83,9 | 83,42 | 84 |
| The amount of large exposures /TNC, (<5) | - | 1,06 | 4,42 | 0,49 | 0,43 | 0,33 |

Source: own work based on data from NBM [10]

The share of foreign investments in the capital of the licensed banks until 2015 had a growth trend, which was due to the increase of the investments of the non-resident shareholders in the share capital and the investments of the domestic shareholders. And from 2015 to 2017, this was a downward trend, due to the loss of confidence in investors following the "bank robbery" with the liquidation of three banks in the banking sector. The average of the risk-weighted capital adequacy ratio on the sector is maintained at a high level, except for 2014, which was driven by dubious transactions by providing bad loans and the bankruptcy of three banks. Even risk-weighted assets in 2014 recorded values of 82% higher than 2013 and about 90% higher than in 2017. [10]

The value of the long-term liquidity indicator (L1) by sector is between 0.6-0.07, which reveals the availability of adequate sources to support bond payments and determines banks' robustness in the event of external shocks, with the exception of 2014, in which this indicator of the banking system were heavily distorted by very large transactions at CB „Banca de Economii” S.A., CB ”BANCA SOCIALĂ” S.A. and CB ”UNIBANK” S.A. Current liquidity (L2) increased by about 68% in 2017, again with the exception of 2014, in which this indicator diminished by 32%, it was also influenced by the liquidity deficit in the banks under special administration, which had current liquidity ratios below the 20 per cent minimum admissible limit. The balance of non-performing loans increased. Respectively, the indicator on 3 banks under special administration negatively influenced the indicator on the banking sector. The increase in non-performing loans was influenced by two banks under intensive supervision, mainly as a result of the reclassification of loans to non-performing risk categories following NBM controls and external audit. At the same time, in order to reduce the level of non-performing loans, the National Bank of Moldova requested banks to develop strategies for diminishing non-performing assets and to monitor them continuously. In fact, the objectives of a performance management of a bank can be synthesized as follows: maximizing profitability; minimizing exposure to risk; observance of the banking regulations in force.

International banking performance management policies and practices

In 2018, credit risk remains the most significant and important area of supervisory priorities. The indicators for assessing the performance and banking solidarity are used by supervision authorities to issue regulatory rules to ensure the stability of the financial system and banks alike. In the literature, these indicators are grouped as follows: the profitability indicators, indicators for assessing the quality of assets and capital adequacy indicators. The development of risk management policies is a permanent concern for the performance management of a banking institution, these policies must be at the level of each bank structure by applying specific tools. [2]

Considered conceptually, profitability is the way to achieve the fundamental purpose of the bank's business, namely to maximize profits under conditions of minimizing risks. The profitability analysis is based on a set of indicators of banking performance measurement. The main performance indicators calculated for banks are presented in figure 1.

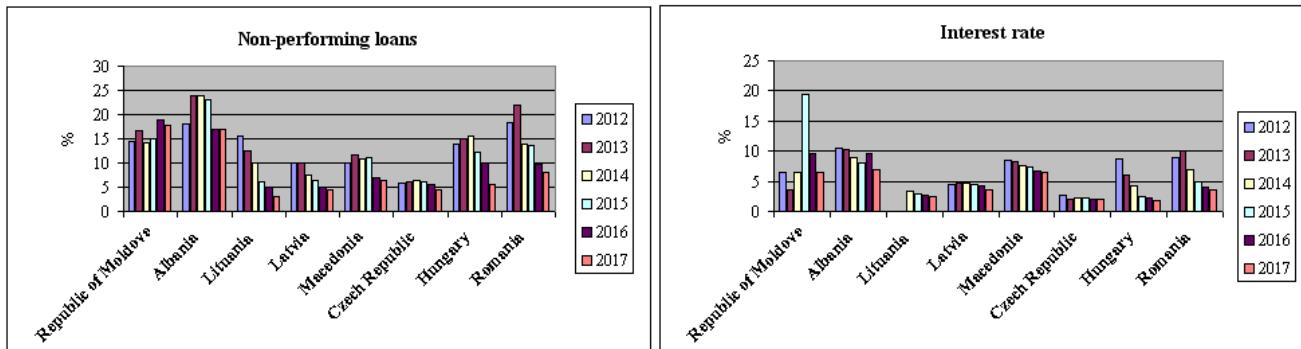


Figure 1 The ratio of NPL and interest rate of Baltic and EU countries compared to Moldova

Source: own work based on World Bank Data [9]

An alarming feature of the domestic banking sector is high level of bad loans. Many banks across Europe suffer from high levels of non-performing loans (NPLs), in particular in Cyprus, Greece, Portugal, Ireland, Italy and some Central and Eastern European countries. In some countries the effective management of NPLs is hampered by unbalanced national insolvency regimes, in which some types of creditor are overly protected from foreclosure actions; an unavailability of out of court restructuring arrangements; insufficient numbers and skills in the judiciary to process actions against nonperforming borrowers; political pressures on lenders and/or the judiciary to avoid foreclosures; and legislative limitations on holders of some asset classes and on the sale of some types of collateral (for example residential property). In all high NPL countries there is a high rate of NPLs in loans to non-financial corporates. But there is a much more varied distribution of NPLs in lending to households and to the financial sector.[14]

Return on Equity or profit on capital, is the most significant indicator of profit, which measures the results of bank management as a whole, and provides a picture of how to use the capital of shareholders, the effect of their engagement in the activity of the bank.

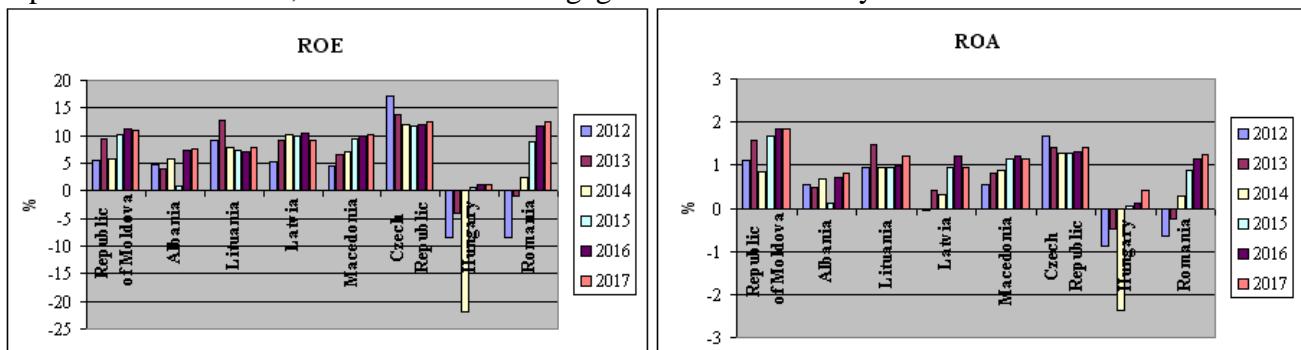


Figure 2 The ROA and ROE indicators for 2012-2017 period

Source: own work based on World Bank Data [9]

Compare the performance of each bank shares with other similar banks, with average or the banking system recorded by the bank in previous periods and helps establish the strengths and weaknesses of the banking company concerned. Among EU countries and some Baltic countries with similar size and economic problems, Moldova has the highest level of the capitalization and liquid reserves.

From my point of view, performance in today's banking is influenced not only by the internal factors of the institution but also by the economic context in which it operates. Specialist literature

devotes important studies to this indicator, considering it to be one of the most significant barometers of the performance of a commercial enterprise.

Ways to optimize the cost of financing the economic entities by banks in Republic of Moldova

A bank's lending policy seeks to strengthen customer confidence in the availability of banks to serve them promptly and under appropriate conditions and with sufficient resources. Most economic entities, especially SMEs, use as source of financing - credits. Therefore, lending policy for banks must comply with legislative requirements such as: the law on foreign exchange regulation, the law on pledge, the law on the mortgage, the Law on Entrepreneurship and Enterprise and others. Reimbursable financing programs are funded from public money, but the banks refines SMEs. In this case the interest rate is lower than the interest rate on the market. In the Republic of Moldova, economic entities can benefit, besides loans and other sources, from financing. Some of the funding programs are: USAID Competitiveness Project; sources of EU funding; government funding sources (over 30 programs); grants for small and medium businesses that apply business innovations / PNUD Moldova; European Bank for Reconstruction and Development (EBRD) – financing projects; Financing Opportunities within the Moldova Competitiveness Project / World Bank; European Investment Bank: Loan Procredit for SMEs and Priority Projects II; The EU COSME program; Competitive Agriculture Project in the Republic of Moldova (MAC-P); Private Public Business Partnership Program; EU Horizon 2020 program; The Agency for Intervention and Payment for Agriculture (AIPA); Credit Guarantee Fund - ODIMM; assistance credit provided by the Polish Government, and ather. [12]

However, besides these programs and projects, credits will always be required. And any credit depending on its type or costs. In the table below are presented the types of credits / products intended to finance the economic entities and their costs (Table 4). For all loans granted, banks charge costs, usually commissions and interests whose levels depend on the policy of each bank, and in the case of non-repayment of the amounts due, penalties are charged. These costs may be standard or negotiable.

Table 4 Types of credits for economic etities and its costs

| Credit product name | Characteristic | Rates and fees |
|--------------------------------------|---|---|
| Credits for newly created businesses | The amount of the credit is from USD 1,000 to USD 30,000 for small businesses and from USD 1,000 to USD 5,000 (MDL equivalent) for micro-enterprises. | Interest rate floating - 18%-20,75% Fee for examining the credit file: 0.2% of the amount of the credit application Single commission - 2% Commission for granting credit: 1%-1,5% of the loan amount Credit administration fee - 0,25% |
| Loans for working capital | The maximum amount of individual credit for each individual debtor, but may not exceed 70% of the borrower's annual sales volume. Credit term: can not be up to 24 months. Currency: MDL, USD and EUR | Fee for examining the credit file: 0.2% of the amount of the credit application, max. 2500 MDL Credit administration fee: 1%-1,5% of the loan amount Commitment Fee: 0.8% of the loan amount Extension / renegotiation fee: 0,5% of the loan amount Fee for early repayment: 2% of the loan amount |

| | | |
|---------------------------------|--|---|
| Credits for investment purposes | The purpose of the loan is to finance the medium and long-term investments needed to support the development / expansion needs of the business. The amount of the credit is determined individually depending on the value of the investment project and is usually granted in a proportion no higher than 80% of its value. The credit grace period may be up to 24 months. | Fee for examining the credit file: 0,5% of loan amount, max. 3000 MDL Commission for granting credit: 1,75%-2% of loan amount Commitment Fee: 0,8% annually out of the undrawn amount of the credit Extension / renegotiation fee: 0,5% of loan amount Fee for early repayment: 2% of the loan amount |
| Overdraft for legal entities | The purpose of the "Overdraft" credit is to finance the client's short-term bonds in cases where spending exceeds temporarily the revenue on its current account. Credit term - 12 months, with the possibility of re-utilization and appropriate extension of the maturity. | Fee for examining the credit file: free Commission for granting credit: 2,5% of the debt limit Commission for modifying contractual conditions: 0,25% of the credit balance at the time the changes were approved |

Source: own work based on data from official site of commercial banks and gov.md

Regarding the cost of the credits, there are maximum costs imposed by the financiers who want the financing at low costs. There are external financing programs at which only the cost that the bank has to pay to the financier, without establishing costs supported by the program beneficiary, but there are also minimal imposed costs whose value is relatively high.

Standard interest is set by each bank based on the attracted source costs, plus the desired profit margin and a fixed risk margin, based on product risk, customer risk. All these rates are justified by banks for several reasons. First of all, products are ranked by risk and term. For example, investment credits are in the VIII category (medium term) and IX category (long-term) risk, ie they are with a higher risk compared to credits for working capital being in the VI category and therefore administration rates are higher. The total cost is influenced by 3 factors: credit amount; duration / period of credit; the annuity factor (depends on the interest rate). The cost components of a credit include: interest rate; single fee; fee for examining the credit file; credit granting fee; annual credit administration fee. Monthly payments are formed mainly from monthly fee (PMP), monthly interest (D) and commissions and fees (C).[16]

$$VVA_o = PMP * \frac{(1+d)^n - 1}{d} \quad (1)$$

where : VVAo - future value of the common annuity (end-of-period payments);

PMP - principal / n;

d - interest rate;

n - number of periods.

The granting of loans must be advantageous for the bank because by expanding and diversifying the loan portfolio it can obtain an additional profit as well as for its clients, which, on account of loans, can grow their businesses and earn higher profits in their turn. Strong competition in the banking market tends to relax the prudential requirements pursued in the granting of loans, but also to reduce the borrowing costs, with the assumption of higher risk and lowering the profit margin, in order to maintain or gain a market share to ensure their medium and long-term growth. The ways to optimize these costs could be: SMEs need to know what credit institutions are lending

to this segment of customers, conditions of eligibility and financial standing and what are the guarantees of banks; simplifying the economic and financial analysis of enterprises; attracting foreign non-reimbursable investments; providing facilities and exemptions for some economic entities which have positive credit history and rising turnover; providing banks with the best indicators between spending and revenue; formation of sufficient financial reserves to hedge risks in the face of economic uncertainty; development of remote customer service technologies. [12]

CONCLUSIONS.

Banking activity is characterized by many risks that affect the performance of banks. The risks and performances are interrelated, and the definition of performance and management of performance allow to achieve the objectives of the bank. Risk management does not make sense independent of expected performance and its aim to optimize the risk-return relationship. From all investigations and analysis can be make some conclusions:

- the experience of the recent financial crisis has led banks to be more careful with the activities in the tasks performed, being registered progress in their risk management;
- there macro-economic risk factors that can have a significant impact on the performance of a banking institution, with direct implications on the quality of a bank's loan portfolio, profitability and capitalization
- improving banking performance indicates a better allocation of financial resources and therefore an increase in investment favors an increase in institutional performance
- the implementation of the Basel III capital requirements (capital-buffer) proposals, would complete the current debt monitoring framework;
- the banking system in the Republic of Moldova can be characterized by a comfortable level of solvency and liquidity;
- the definition of bank performance can not be done by means of a mathematical / econometric indicator or instrument, but this involves analyzing a set of indicators over a reasonable time horizon, always taking into account the economic context in which entities operate;
- banking performance is influenced both by internal factors and by external factors;
- a major source of funding for most businesses is the credit;
- credit costs are set individually according to several criteria: risk category, attracted resources, risk margin, banking markets evaluation, competition, etc.

Following these conclusions, a set of measures are proposed for improving the banking performance and optimizing the costs of financing the economic entities:

- provide a wide range of financial-banking services;
- evaluate and minimizing the risks associated with its activity;
- ensure optimal indicators between expenditure and revenue;
- ensure maximum return on capital;
- modernize and improving information technologies;
- optimize business processes and organizational structure;
- ensure financial stability of the Bank in line with best international practices;
- formation of sufficient financial reserves to hedge against the risks of economic uncertainty;
- implement the recommendations of the Basel Committee on Banking Supervision III
- development of control and immunization mechanisms for the asset portfolio
- to minimize bank operational costs and optimize business processes;
- strength the independence of the NBM;
- review credit policy, establish concentration limits on types of credit facilities, cessation of unsecured consumer credit, improve the process of tracking and achieving reassessment of guarantees, draft or improve the rules on the sale of receivables, credit risk assessments based on alternative scenarios for crisis conditions, adherence to the maximum allowable limits for large exposures.

REFERENCES:

1. Law on Banking Activity no. 202 from 06.10.2017;
2. Regulation on the lending activity of banks operating in the Republic of Moldova, approved at the meeting of the Board of the NBM, the minutes no. 45 of 25.12.1997, with subsequent amendments;
3. The new Basel III regulations on capital and financial stability, Proceedings of International Economic Conference of Sibiu - IECS 2013, ISSN 2344-1682,
<http://iecs.ulbsibiu.ro/download/iecs%202013%20conference%20proceedings.zip> [cited on 04.04.2018];
4. Apătăchioae, A., The performance, banking risks and their regulation, 7th International Conference on Globalization and Higher Education in Economics and Business Administration, GEBA 2013, Procedia Economics and Finance 20 (2015) 35 – 43. [cited on 04.04.2018]
5. Bolocan, M., 2011, Performanta sistemului bancar din Romania. Impactul integrării europene,
http://doctorat.ubbcluj.ro/sustinerea_publica/rezumate/2011/finante/Bolocan_Mihail_Dragos_%20RO%20.pdf. [cited on 19.04.2018]
6. Caracteristica acordului Basel III, „Basel Committee on Banking Supervision” (PDF). www.bis.org. 2010. [cited on 02.04.2018]
7. Darovannaia, A., Acordul Basel III: Necesitatea si carentele implementarii, Analele ASEM, ediția a X-a;
8. Hîncu, V., Fundamentele evaluării performanțelor bugetare la nivelul administrației publice centrale. Teză de doctor. ASEM, Chișinău, 2016. C.Z.U.:336.14:354(478)(043);
9. Indicatorii de performanță a statelor Baltice și a UE– Banca Mondială - <https://data.worldbank.org/indicator> [cited on 27.03.2018];
10. Informația privind activitatea economico-financiară a bancilor comerciale 2012-2017. Banca Națională a Moldovei – <http://www.bnml.md/bdi/pages/reports/drsb/DRSB1.xhtml?id=0&lang=ro> [cited 19.03.2018];
11. Jianu, I., „Performanță – o noțiune care se caută pentru a se regăsi. Ambiguitate și claritate”, Revista Contabilitatea, expertiza și auditul afacerilor, nr.5 , București, 2006;
12. Magda Florin-Mihai, Politica de creditare a bancilor comerciale în finanțarea entităților economice. Rezumatul tezei de doctorat. Universitatea Babeș-Bolyai, Cluj-Napoca, 2016;
13. Olteanu, A; Management bancar, Ed. Dareco, București, 2003;
14. Raportul KPMG privind NPL - kpmg.com/ecb may 2017 [cited on 23.04.2018]
15. Neacsu, V., Managementul performanței, Revista - Iunie 2009 [Nr. 116];
16. Wagner, J., Measuring Performance – Conceptual Framework Questions, European Research Studies Journal, Volume XII, Issue 3, 2009.

FINANCIAL JUSTIFICATION OF GENDER EQUALITY BENEFITS. INTERNATIONAL PRACTICES

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Abstract. Women represent half of the world's total population, but far less than half of the global economy. Why? ... One of the reasons is that women's work is often unpaid. So, economists cannot value / quantify it. Jobs in the highest-paid sectors of the economy are usually dominated by men. Even when women perform exactly the same jobs, they are less likely to be advanced on the career ladder get higher positions. In addition, they are often paid less.

If women had better paid jobs, doing the same work, and being paid the same as men, the global economy would be higher, with about 12 trillion US dollars. Gender inequality costs more than people are used to think.

Keywords: gender equality, costs, inequality, economic growth

JEL CLASSIFICATION: B54, B55, D13, D14, J12, J14, J15, J16, J18, I31, I32, Z13, Z22

The McKinsey Global Institute finding that labor market gender inequality represents a \$12tn (£7.8tn) loss in global GDP over the next decade is striking. Yet the potential losses to women themselves are even more startling. ActionAid estimates that women could be \$17tn better off each year if their pay and access to jobs were equal to that of men. Women's cheap labour is in effect subsidising the global economy by this staggering amount – a direct result of gender discrimination.

The study's recommendation to increase outputs by shifting women into more productive jobs only partly addresses the problem. Increasing women's access to the job market in pursuit of growth at any cost will not enhance gender equality. If the only jobs available to women are poorly paid, unregulated and exploitative, women are further marginalised and gender discrimination in wider society is reinforced via the economy. As the authors point out, equality in the labour market relies on social change and legal protection of women's rights. This requires governments to adopt a policy framework that guarantees women's access to decent and safe employment, and, crucially, addresses the disproportionate burden of unpaid care work that they do in the home. When the gains to the global economy are paramount in decision-makers' minds, women's rights will always come second.

Gender-equality will help make a society wealthier, improve freedom, strengthen families, improve democracy, promote peace and reduce violence.

- Filling roles with the person who is best qualified rather than the person who is best qualified and the “right” gender means on the average getting better qualified people. Relative to a strictly gender-segregated society a gender-equal one has twice the talent-pool available for all jobs.

- Gender-equality increases freedom since it gives individuals the freedom to do anything they want to do, rather than limit them arbitrarily to a subset of activities judged “appropriate” for their gender.

- Gender-equality increases the resilience and flexibility of families. In a family with strict gender-roles odds are only the husband has an income, and only the wife has experience and expertise in handling household-chores. A gender-equal family in contrast frequently has 2 adults who **both** have an income and are **both** able to take care competently of the household. This makes them a lot better equipped to handle life's curve-balls.

- Gender-equality strengthens democracy. The entire point of Democracy is that the people hold the ultimate power in a society. It should be fairly obvious why excluding half of humanity from equal participation in running society by necessity weakens democracy, relative to letting all genders contribute equally.

- Gender-equality promotes peace and reduces violence: “research has found robust support for a relationship between gender inequality and civil war. These results all point in the same direction; countries that display lower levels of gender equality are more likely to become involved

in civil conflict, and violence is likely to be even more severe, than in countries where women have a higher status.” (note that this remains true even after compensating for GDP/capita). [2]

The list of benefits of better gender-equality is much longer than this. Inter alia, it could refer to fathers who know their children, to mothers with a career, to saving money, to being a teenager in a more gender-equal society, to civil rights, to reduction of crime, to lower child-poverty, better mental health, tolerance and acceptance, an endless list of things, all of them having clear significant costs beneath.

Gender equality has a powerful potential to improve the economy, security and the overall well-being of a population. Gender equality has a powerful potential to improve the economy, security and the overall well-being of a population. Nonetheless, no country in the world can boast that it has achieved full gender equality. World leaders are beginning to recognize that everyone benefits from advancing gender equality. For example, this is why gender equality is part of U.S. foreign policy. A key part of U.S. efforts focus on educating and empowering girls. In the past 18 months, the United States launched its global strategy to empower adolescent girls, as well as Let Girls Learn, which is an initiative that focuses on educating girls. US also work with numerous countries to dismantle barriers that keep women from inheriting or owning property, entering the formal job market or accessing banking services. Gender inequality is good economics. Yes, you read that correctly. While we know that individuals, economies and societies would benefit from gender parity in the long term, gender inequality is often a perfectly rational choice for individuals in the short term. [3]

Gender imbalances, and their resulting economic consequences, are still startlingly visible everywhere, from the developed world to emerging markets. In Brazil, more women attend university than men, but women earn only a third of what men make for the same job. In the United Arab Emirates, three times as many women go to university as men, but half as many women participate in the labor force. Across Europe, women outperform men academically and enter the workforce in similar numbers, but occupy less than 15 percent of board positions. In Pakistan, a girl has only a 29 percent chance of making it into secondary school, compared to 38 percent for a boy.

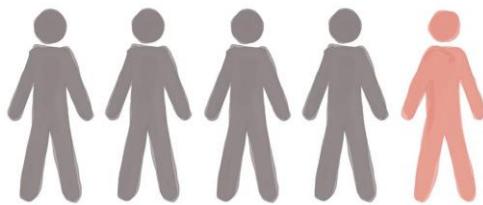
There is irrefutable evidence on the economic contribution that women can make, from the familial and community level, to research showing that companies get a diversity dividend, to the World Economic Forum's own global data on the correlations between gender and competitiveness. By some estimates, gender parity in employment could raise the GDP of countries such as the United Arab Emirates by 12 percent, Japan by 9 percent and the United States by 5 percent. While many institutions are constantly pointing to these potential collective gains, progress remains dismally slow. [3]

Today, of all days, no one needs to remind feminists and humanists more generally, that there is no greater *moral* and *political* imperative than to ensure the equality of nearly half of the global population -- it is fundamental to a just and more tolerant world. Moreover, equality is a human right, and over the past two decades, the world has affirmed that women's rights are human rights.

Similarly, when women are empowered, humanity is empowered. That is something that is often overlooked: The tangible benefits of gender equality to humankind as a whole.

Acknowledgement of this truth is evident in the 17 global Sustainable Development Goals, accepted by 194 governments around the world and endorsed by the United Nations. These global goals explicitly call for incorporating women and gender into every objectives -- ranging from "Zero Hunger" and "No poverty" to "Quality Education" -- and has one goal focused exclusively on women. This goal, simply entitled "Gender Equality," is a testament to the continuing elusiveness of the rights of women and girls. [5]

Clearly, gender equality is essential to our planet's collective future. Let's take a look the specifics, starting with poverty. Simply put, we understand that **gender equality will reduce poverty**. Remember the phrase "the feminization of poverty"? It continues to hold true. The shocking fact remains that more than **one in five people** in the world -- that's over 1 billion people -- live on less than \$1.25 a day. **Seventy percent of such "ultra-poor" people are women.**



Poverty reduction in lower income countries depends in large part on women, whose work is often unremunerated. In addition to their key role in household management and caring for children, the sick and the elderly, women are responsible for essential tasks such as fetching increasingly scarce firewood and water. Gender inequality is recognized as further perpetuating poverty, because women face life-threatening risks from early pregnancy and lose chances for education and improved income early in life. Ensuring that women graduate out of such poverty and have greater earning capacity will, almost by definition, make headway against this scourge.

Gender equality promotes agriculture and will reduce world hunger. Women comprise an average of 43 percent of the agricultural labor force in lower income nations, yet women farmers control less land and have restricted access to all the investments necessary to improve agricultural productivity. Worldwide, less than 20 percent of landholders are women. If women had the same access to resources as men, they could increase agricultural output that could potentially reduce the number of hungry people in the world by approximately 90 to 130 million.

Gender equality also expands labor markets and improves employment opportunities for all. With women now representing 40 percent of the global labor force and more than half the world's university students, overall productivity will increase if their skills and talents are used more fully. Full participation of women in the labor force would add many percentage points to most national growth rates, probably double digits in many cases. According to a recent study published by the International Monetary Fund, closing the gender gaps in the labor market would raise gross domestic product in the United States by 5 percent, in the United Arab Emirates by 12 percent and in Egypt by 34 percent. Investing in programs that improve income generation for women can return \$7 for every dollar spent.

Gender equality in education contributes to higher economic growth. Over the past 50 years, increased educational attainment for women and girls accounts for about 50 percent of the economic growth in OECD (Organization for Economic Co-operation and Development) countries, a group of 35 high-income nations. In the Asia and the Pacific region, it has been estimated that between US\$16 billion to US\$30 billion is lost annually as a result of gender gaps in education. Investing in education programs for girls and increasing the age at which they marry can return \$5 for every dollar spent on such programs. Interestingly, research also indicates that every single additional year of education for women of reproductive age decreases child mortality by 9.5 percent.

To top off all this information is another extraordinary fact: A one-year increase in health expectancy for women could raise a nation's gross domestic product by up to 4 percent. In other words, **gender equality in health contributes to economic development.** [5]

If development is not engendered, it is endangered

Nairobi, Kenya – Gender inequality is costing sub-Saharan Africa on average \$US95 billion a year, peaking at US\$105 billion in 2014– or six percent of the region's GDP – jeopardizing the continent's efforts for inclusive human development and economic growth, according to the [Africa Human Development Report 2016: Advancing Gender Equality and Women's Empowerment in Africa](#), published today by the United Nations Development Programme (UNDP).

"If gender gaps can be closed in labour markets, education, health, and other areas, then poverty and hunger eradication can be accelerated", said UNDP Administrator Helen Clark at the launch today, attended by Kenya's President Uhuru Kenyatta at the Tokyo International Conference on African Development (TICAD) VI.

Achieving gender equality and women's empowerment is the right thing to do, and is a development imperative", Helen Clark said.

The UNDP report analyses the political, economic and social drivers that hamper African women's advancement and proposes policies and concrete actions to close the gender gap. These

include addressing the contradiction between legal provisions and practice in gender laws; breaking down harmful social norms and transforming discriminatory institutional settings; and securing women's economic, social and political participation.

Pathways to gender equality and women's empowerment

Addressing gender inequality requires an all-of-government and all-of-society approach, taking into account established linkages between women's social wellbeing and economic opportunities for more productive lives.

The report proposes four strategic pathways to greater gender equality and women's empowerment – adopting legal reforms, building national capacity to accelerate women's involvement in decision-making, adopting multi-sectoral approaches in promoting gender equality and women's empowerment, and accelerating women's ownership of assets and management of resources.

The report further recommends six enabling actions to fast-track the achievement of gender equality and women's empowerment, and by extension, the Sustainable Development Goals and Africa's Agenda 2063:

- **Using gender equality as an organising policy lens for all development planning and implementation** to ensure that gender equality and women's empowerment is a deliberate design feature.

- **Directly tackling destructive social norms** as African leaders can no longer abdicate from their responsibility to address harmful social norms in a straightforward and unambiguous manner.

- **Planning and budget prioritisation for gender equality** that foregoes short-term politically and economically expedient decision-making, and instead links immediate priorities to a long-term vision mapping out a more inclusive and empowering development trajectory.

- **Ensuring adaptive national institutions to drive a strong, proactive and responsible social framework** that develops policies, follows through implementation and readjusts in the face of shifting evidence and the changing needs of society.

- **Giving value to data for improved decision-making** and informed policy change and mid-course corrections. Data disaggregation beyond national-level is critical to gauge impact at regional and local-levels.

- **Engaging in regional and South-South Cooperation in designing and implementing gender-focused policies and initiatives** to share tools, strategies and experiences across sectors.

Achieving gender equality and women's empowerment cannot be achieved without forging alliances among development actors - government, civil society, private sector and other development partners.

In this perspective the report proposes two major initiatives, the establishment of an African Women's Investment Bank and the implementation of Gender Seal certification to promote gender equality standards in workplaces.

The report is clear that countries that invest more in gender equality and women's empowerment are doing better on human development. To ensure Africa's inclusive growth it is critical that half the continent's population – girls and women – play transformative roles. [6]

Throughout the world women often receive less education and are not employed at the same rate as their male counterparts. In the United States, there are nearly twice as many men as women with professional or doctoral degrees, and 70.5 percent of men either have a job or are looking for one compared to just 58.1 percent of women. And in countries like Yemen, gender disparities are seen even in secondary school where boys enroll at a rate 20 percentage points higher than girls.

There are many potential variables that could account for this inequality – societal norms, gender discrimination, or the challenges surrounding childcare – but what is becoming more obvious is that this gap is negatively impacting entire populations. Beyond issues of gender equity and human development, research points to damaging economic consequences for regions with large gender gaps in education and employment.

In their empirical analysis of regions around the world between 1960 and 2000, authors Stephan Klasen and Francesca Lamanna expound upon the growing body of research indicating that

gender gaps in education and employment have negative economic consequences. Overall, the authors find that reducing gender gaps is correlated to positive regional economic growth.

The authors compare economic growth rates to education and employment gaps for several regions including the Middle East and North Africa, Latin America and the Caribbean, East Asia and the Pacific, Organization for Economic Co-operation and Development, South Asia, Sub-Saharan Africa, and Eastern Europe and Central Asia. They confirmed that gender gaps in education and employment create statistically significant regional economic inefficiencies. They also provide insight into which regions have been hurt the most by their respective gender gaps and why this may be the case.

The authors outline several explanations for why a gender gap in education and employment could lower economic development. Previous studies suggest that two primary reasons the education gap is harmful to the economy are inefficient uses of human capital and increased fertility rate. By excluding women from various forms of higher education, regions reduce their productivity. Women that could be valuable assets to the economy are not achieving their full capabilities in the labor market, and the economy suffers because its human capital is limited and competition is reduced.

Arguably more vital to economic success is the population shift due to fertility rates. Previous research shows that low levels of education are highly correlated with higher pregnancy rates. This leads to populations with a labor force that cannot support the rest of the population. By contrast, regions with a low education gender gap have shown what Bloom and Williamson (1998) call a “demographic gift,” meaning there will be more active than inactive individuals in the labor force, thus boosting economic productivity.

Klasen and Lamanna also note that previous research indicates that a high employment gender gap reduces the talent pool for prospective employers. This underutilization of human capital and labor has a negative impact on overall economic efficiency. Research suggests this is especially true of manufacturing export-based economies that depend on a high degree of labor. There is also evidence to suggest that women with the ability to make financial decisions tend to save more, are less prone to corruption, and tend to spend money on investments like healthcare and education, which leads to positive economic growth.

The study by Klasen and Lamanna reveals that South Asia (SA), the Middle East and North Africa (MENA), and Sub-Saharan Africa (SSA) have large economic and education gender gaps correlating with weak economic growth. MENA and SA are reducing their education gaps and could see a demographic gift soon, but the countries have suffered more than regions near them, like East Asia, that have done a better job reducing their gender gaps. In addition, the MENA region has reduced its education gap faster than SA, leading to more economic growth. In SA, only Bangladesh worked to reduce its gender gaps and has experienced an economic boom similar to East Asia.

Given the current data, it would be advisable for countries to enact policies that reduce their economic and education gender gaps. Persistent gender gaps not only impact women, but are damaging to the socioeconomic development of entire populations. From this perspective, gender inequality is a disadvantage to societies that must compete in global markets where countries around the world are taking steps to decrease gender gaps and improving their economies. [7].

CONCLUSION:

There could be identified and mentioned five huge benefits of Gender Equality in business, especially in a small business. Each and every employee significantly impacts the way a business garners success. Even if only one new male employee is added to the team, he will be able to bring to the table something that no one else has. The more variety in perspectives and ways of thinking is in place, the more benefits can be seen within the workplace, such as:

1. Varied Viewpoints: Having a rich and varied mixture of skills, talents and strengths makes for all kinds of otherwise unexplored mental territory, and men and women bring different things to the table. For example, women have an incredible way of improving workplace functionality by supporting,

collaborating with, rewarding and inspiring coworkers, making for a stimulating and creative environment. While men can certainly be good team players too, they are often able to bring in a pragmatic element with strength in analyzing, influencing and delegating tasks within the workplace.

2. *Strengthen Communication*: One of the biggest differences between men and women is revealed through the ways in which they communicate. And as any business owner knows, strong communication skills among employees is essential to maintaining success. Both genders need to be able to clearly express their needs, ideas and concerns in a safe and open environment. This is where differences in communication come into play. Men are typically better at communicating issues and tackling confrontation, whereas women are more culturally influenced to work as peacemakers and try to solve an issue internally first. Both means of communication and conflict resolution are essential, and one would not work without the other.

3. *Foster a Positive Work Environment*: No matter the field of the business, a work environment where employees feel valued and respected by each other is going to make for an all-around better workplace for everyone. With a diverse group of men and women from different backgrounds, employees will notice strengths and talents in their coworkers that they don't encompass themselves, and it's very likely that this appreciation for differences will stimulate an environment where everyone respects one another. This makes for a team better equipped to handle conflict when it inevitably arises, and a safe environment where all feel valued makes for improved company morale as well as increased job performance.

4. *Take Care of Employees, and They'll Take Care of You*: Speaking of improved job performance, it's no surprise that workers produce better quality work when they are taken care of and feel comfortable, trusted and safe. To get the highest quality of work, provide an environment where people are judged based on the work they do, not their background, race or gender. Allowing both men and women to feel valued as people will enhance the workplace immensely. The kind of nurturing environment you supply for your employees will have a positive ripple effect on both job satisfaction and performance.

5. *Gain a Great Reputation*: Along with team members feeling appreciated by and respectful toward their coworkers, increased gender equality and diversity within the workplace really skyrockets the company's reputation to the outside world. People with similar values will want to work both with such company and for a particular employer based off on the harmonious workplace. Unfair and discriminatory work environments make it hard for employers to create the highest-functioning, most productive workplace. But equal treatment, opportunity and reward make for happy employees, which makes for better business and a better reputation for the brand. Clients, community and customers will want to be a part of what is created. [4]

BIBLIOGRAPHY:

1. Anika Rahman. Gender Equality Benefits Everyone. <http://www.truth-out.org/speakout/item/39749-gender-equality-benefits-everyone>
2. Daphne Jayasinghe. Women's rights policy adviser, ActionAid <https://www.theguardian.com/society/2015/sep/30/gender-inequality-and-the-cost-of-womens-burden-of-care>
3. Eivind Kjørstad. What is the benefit of gender equality? <https://www.quora.com/What-is-the-benefit-of-gender-equality>
4. Five Huge Benefits of Gender Equality in Your Business. NAWBO Institute for Entrepreneurial Development. <https://www.nawbo.org/resources/nawbo-one/2016/august/five-huge-benefits-gender-equality-your-business>
5. Gender gap costs sub-Saharan Africa \$US95 billion a year: New UNDP report. Aug 28, 2016. <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2016/08/28/les-disparités-entre-les-genres-co-tent-l-afrique-subsaharienne-95-milliards-de-par-an.html>
6. Glenn Jacobs. What is the benefit of gender equality? Protecting Employee Rights. <https://www.quora.com/What-is-the-benefit-of-gender-equality/answer/Glenn-Jacobs-7>
7. Klasen, Stephan, and Francesca Lamanna. The Impact of Gender Inequality in Education and Employment on Economic Growth: New Evidence for a Panel of Countries. *Feminist Economics*, 2009. https://econpapers.repec.org/article/taffemeco/v_3a15_3ay_3a2009_3ai_3a3_3ap_3a91-132.htm

BANKING BUSINESS MODELS: CONCEPTUAL AND METHODOLOGICAL APPROACH

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Abstract. This article represents an analysis of the domestic banking sector, viewed from the perspective of setting up a new banking business model. The economic problems that Republic of Moldova was confronted with over the years from independence to the present, as well as the proven bank crises, have led to the implementation of a series of regulations imposed by the governmental, intergovernmental and supranational supervisors on the assurance of certain capital and liquidity indicators. All this led to a significant change in the banks' business, as well as their orientation in ensuring a balance in obtaining profits and complying with the new European requirements.

Keywords: model, bank business, banking regulation, risk, stability, cost, portfolio, innovation.

JEL CLASSIFICATION: G20, G21

1. INTRODUCTION

The domestic banking sector has faced over time a number of problems in setting up a viable banking business model in the Republic of Moldova. The problems were attested with the independence in 1992 and the creation of a functional banking sector based on international regulations and a framework legislative approach to the functioning of a market economy. The problems followed with the attestation of banking and financial crisis in 1998 and 2008-2009. Currently, the Moldovan banking sector is at a resurgence stage after bank fraud attested in 2014, which will bring major changes in the future in configuring bank business models.

Among the major factors that determine the changes in banking business model can be mentioned: the profitability of the commercial banks as well as the post-crisis regulation of the banking sector, which is inevitable in the stage of transition over periods of financial instability.

The purpose of the research is to analyze the emergence of a banking business model that restores a viable trust system that will support the achievement of increased competitiveness and inclusive economic growth of the national economy and the domestic banking sector. This topic is crucial because of the equilibrium of a banking business model that will ensure a desired profit for banks, as well as compliance with a set of regulations imposed by government, intergovernmental and supranational regulators and supervisors to reach levels of capital ratios and the required liquidity ratios. The topic exposed is of utmost importance for the general public because all the changes and developments in the given field can affect or benefit, this period being crucial for the Republic of Moldova in inclusive and sustainable economic growth by applying the new reforms and consolidations in the banking sector.

2. THE CONCEPTUAL FRAMEWORK

The Banking Business Model is a planning tool designed to give greater visibility to the goals and evolution of a particular business to which it is dedicated. The business model also has the role of supporting in obtaining financing from an investors, bank or state.

Banking regulation is a set of specific laws and regulations applicable to banks in their business. Ensuring a regulatory system linked to an appropriate bank business model is based on ensuring that objectives such as maintaining stability and confidence in the banking sector (protection against systemic risk) are maintained; protection of customers (especially depositors) against financial losses in bankruptcy of banks; protecting customers (consumers) against bank abuses; counteracting the moral hazard induced by the existence of the banking sector's safety net; ensuring an efficient and competitive banking sector [1, pp. 8-33].

3. THEORETICAL APPROACH

Over the years the economy of the Republic of Moldova has experienced a series of economic and financial fluctuations, which have led to major changes in the economic policies promoted in the country. Over a long period of time, banks' main source of income continues to be lending at a fairly high interest rate due to the country's economic instability and low economic growth. Thus, with regard to the future of the local banking business, we can say that there will be a moderate growth trend in lending, the deterioration of the quality of the loan portfolio being granted and the increase of number of non-banking institutions willing to affirm. The credit model for lending in the Moldovan banking sector will be stagnant, as is the credit activity of the Republic of Moldova, which in the last years has experienced a stagnation, which can be observed also from the following data:

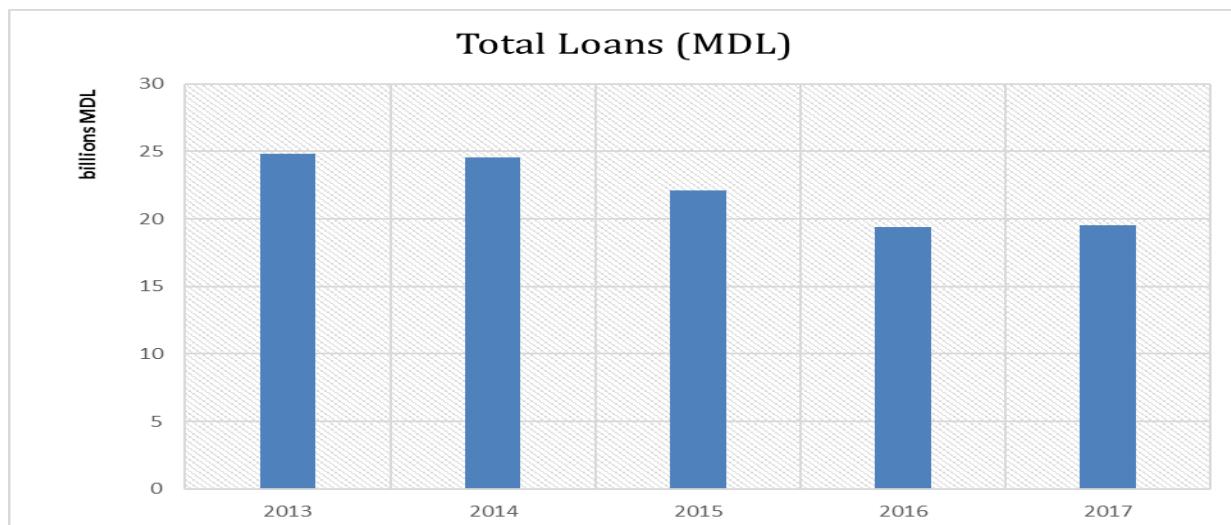


Figure 1.1. Dynamics of the loan portfolio granted by commercial banks to individuals and businesses in the period 2013-2017.

Source: Developed by the author based on data from the National Bank of Moldova

We note that the evolution of portfolio credit of granted to individuals and companies by banks during the last 5 years shows a stagnation in lending, even a decrease of about 6 percent per year. This decrease is due to the borrower's increased credit quality. The profit resulting from granting of loans is diminishing at a rather rapid pace, which is why it is necessary to revitalize the banking sector through innovation, our country having a great potential for SMEs to grow in the field of agriculture, they could follow the path of specialization, microfinance being the key to success and recovery in the credit field.

In terms of diversifying the loan portfolio, banks confront the problem of long-term financing, where deposits attracted for up to one year prevail over twice the credit coverage needs, which are contracted for up to one year. This is the opposite of long-term credit coverage where deposits cover only half of the financing demand, and banks are forced to use medium and long-term funding in such situations. Most banks in the Republic of Moldova hold foreign capital, so the adopted banking business model is often determined by parent companies, or by the majority shareholders.

The lending-oriented banking business model has the potential to achieve good results only in a period of economic boom and in an environment of low interest rates and inflation. The current business model consumes far too many resources (capital) that could be used in other banking sectors more effectively. The main problem in configuring this business model remains that the time horizon of money in deposits does not coincide with that of maturity transformation, this practice has over time led to the destruction of banks' credibility and the emergence of financial crisis [2].

For our country, the commercial banks are still the main source of short, medium and long-term financing as they have some advantages related to:

- Size (enabling them to have geographical, territorial);

- The nature of the activity (which provides companies with current accounts, payment systems and other services);
- The ability to provide deposit guarantees.

Another model of bank business that is configured in the Republic of Moldova and is growing significantly in the last years is that one oriented to the needs of the client and adaptation to change through rapid assimilation of economic information that focuses on meeting the client's needs. The future of this banking business model is going to be lasting, the digitization stage being the key to success in providing banking services to customers.

In the national economy a growing segment is the national payment system, this segment aims at:

- Introducing in the Republic of Moldova a system that corresponds to international practices and standards;
- Enhancing the circulation of money;
- Ensuring safe and effective risk management mechanisms;
- Forming a complex structure represented by the real-time gross settlement system and the net settlement clearing system;
- Creating infrastructure prerequisites for the use of modern payment instruments.

The digital business model of electronic banking, namely in the use of cashless payment instruments and services, has a number of advantages in meeting the needs of customers, including: payment card; credit transfer; direct debit; e-banking (pc-banking, internet-banking, mobile-banking). These technological advances in the domestic banking sector are inevitable, but these advances will be the path of attracting new potential customers, will ensure the efficiency of the whole banking process [3, pp. 15-36].

The domestic banking sector in the field of digitization in recent years is experiencing significant progress, as can be seen from the dynamic analysis of banking products related to digitization:

Table no.1. Dynamics of bank cards during the years 2009-2017 (units)

| Name of the index | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Number of cards in circulation at the end of the analyzed period - total | 745 615 | 817 520 | 911 682 | 1 011 673 | 1 150 969 | 1 302 225 | 1 290 164 | 1 512 110 | 1 736 056 |
| Number of cards issued during the analyzed period - total | 235 624 | 307 319 | 328 001 | 359 322 | 403 710 | 454 701 | 709 510 | 546 261 | 567 067 |
| Number of cards withdrawn from circulation during the analyzed period - total | 222 328 | 235 414 | 233 839 | 259 331 | 264 661 | 303 445 | 396 588 | 324 315 | 343 121 |

Source: Developed by the author based on data from the National Bank of Moldova

The table above shows that the number of cards during the years 2009-2017 has increased on average by 10 percent, representing in 2017 a number of 1736056 cards in circulation. The average number of new cards issued annually during the analysis period is approximately 420000 cards. Therefore, the growth rate of bank card usage in the year is upward, reaching a rather impressive level.

The future of the digitally-oriented banking business model is also evidenced by the increase in the number of card transactions issued in the Republic of Moldova carried out in the country and abroad, this evolution can be seen in the diagram below:

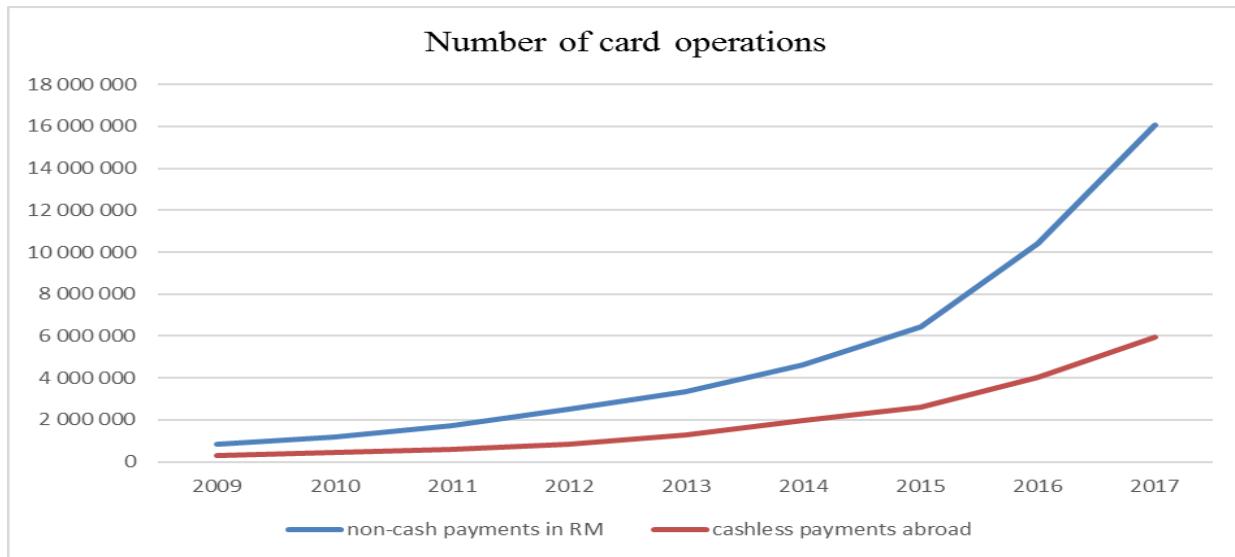


Figure 1.2. The dynamics of the number of non-cash transactions with bank cards in Moldova and abroad during 2009-2017.

Source: Developed by the author based on data from the National Bank of Moldova

From the figure above it can be noticed that the number of non-cash transactions using bank cards in the Republic of Moldova and abroad has registered in the period 2009-2017 a growth trend of about 45 percent for the year 2017. Finally, the total number of cashless payments being 22 million transactions.

Banking technology and business modeling towards digitization have forced commercial banks to acquire special devices to ensure business under the development of new information technologies. Thus in the following table is presented the dynamic growth of the special devices used in the framework of the implementation of the business model oriented to digitization:

Table no.2. Dynamics of Special Devices 2010-2017 (Units)

| Name of the index | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------------------|-------|-------|--------|--------|--------|--------|--------|--------|
| Number of special devices - total | 8 198 | 8 928 | 10 378 | 11 563 | 12 679 | 13 065 | 16 174 | 17 759 |
| POS terminals | 7 315 | 7 986 | 9 362 | 10 468 | 11 541 | 12 040 | 15 077 | 16 609 |
| imprinters | 117 | 91 | 92 | 90 | 56 | 52 | 51 | 51 |
| ATMs | 766 | 851 | 924 | 1 005 | 1 082 | 973 | 1 046 | 1 099 |

Source: Developed by the author based on data from the National Bank of Moldova

The table shows that the POS terminals in the analyzed period are experiencing a vertiginous boost, the reason being the increase in non-cash payments. Imprints and ATMs have remained virtually unchanged, demonstrating the population's orientation towards digitization and the promotion of state-of-the-art banking products and services.

In the setting of the banking business model, the new regulatory requirements that impose certain commercial and capital indicators on commercial banks play an important role. These regulatory requirements come at a certain cost, which ultimately indirectly supports customers. Regulatory costs can be:

- Increase in capital cost due to changes in capital requirements under the provisions of the Basel III agreements;
- Increase in the cost of liquidity due to changes in the minimum liquidity coverage requirements;

- Increase the cost of operation due to the multiplication of surveillance levels;
- Restructuring of the asset portfolio as well as a new prioritization of markets and customers;
- Building a new model of regional governance - considering the banking groups with reference to regional coordination and centralization;
- Differentiated products and services by customer and business segments - identifying the growth engines in the area;
- Innovation - affecting cost savings and structuring new products and services [4].

4. CONCLUSIONS

Changes in domestic banking sector are unavoidable, and the configuration of future banking business models will depend on the following situations: lower lending, especially for transactions requiring maturities of more than two years (real estate projects, infrastructure works); increasing the cost of credit, especially for high-risk borrowers (small and medium-sized businesses, small and medium-income individuals); the increase in costs for operations requiring liquidity and the use of human resources (operations at the bank's counter); monetary market pressure, as small banks will need additional funds to restructure their portfolio; the closure of subsidiaries owned by foreign banking groups; the gradual diminishing of the advantages offered to serving current accounts and savings in lei.

The current crisis has brought us many problems, but also many opportunities, which we have not exploited most of the time. It's not too late!

REFERENCES:

- 1.BRUNNERMEIER, MARKUS K. and DONG, G. Nathan and Palia, Darius, Banks' *Non-Interest Income and Systemic Risk* (January 31, 2012). AFA 2012 Chicago, 44 [online] Disponibil at SSRN: <https://ssrn.com/abstract=1786738> or <http://dx.doi.org/10.2139/ssrn.1786738> ;
- 2.Grant J. "Banks need to rediscover the ancient art of caution", Financial Times, December 14, 2012;
- 3.Lane, Philip R., „*Financial Globalisation and the Crisis*” (December 1, 2012). BIS Working Paper No. 397, 42 [online] Disponibil, SSRN: <https://ssrn.com/abstract=2248065> ;
- 4.The Economist "Filling the bank-shaped hole", December 15, 2012;
- 5.Banca Națională a Moldovei, *baza de date interactivă*, [online] Disponibil, <http://bnm.md/bdi/>.

THE BANKING SUPERVISION PROCESS IN THE REPUBLIC OF MOLDOVA IN THE CONTEXT OF IMPLEMENTATION OF BASEL III REQUIREMENTS

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Abstract. Beginning with year 2018, the banking activity in the Republic of Moldova will be conducted in line with the Basel III requirements, which will have a gradual implementation, until the year 2020. Changes in the regulatory framework will ensure the development of the domestic banking sector by strengthening the internal governance, reporting of all risks by banks and maintaining adequate capital, both in terms of quantity and quality, that will finally contribute to the offer of safer and better quality financial services. Reforms in the field of banking supervision have the goal to consolidate the banking sector as a whole, as well as the individual banks - prerequisites for real sector financing and ensuring the country's sustainable economic growth.

Key words: banking sector, Basel III requirements, supervisory framework, risk management, supervisory review and evaluation process

JEL CLASSIFICATION: G21, G32

INTRODUCTION

A sound and robust banking system is an important condition for a sustainable economic growth, taking into account the role of banks as financial intermediaries in the lending process. Moreover, the banks provide different services to consumers, enterprises and public authorities, which have great confidence in a bank when carrying out their activities at the national and international level. Sustainability and resistance to shocks of banks and the banking system as a whole are also important, given that these institutions operate with financial sources drawn from the population.

Accordingly, the basic functions of a banking supervisor include both the need to maintain financial stability and the security of deposits of individuals through an adequate regulatory and supervisory framework.

In April 2016 the National Bank of Moldova (NBM) approved the Basel III Implementation Strategy in accordance with the European legislative framework. The document aimed to identify the necessary measures for the implementation of the European banking regulatory and supervisory package. Between the years 2015 and 2017, the National Bank of Moldova benefited from the assistance provided by the central bank of Romania and Netherlands, through the Twinning project. The project was based on strengthening the NBM's ability to regulate and supervise the national banking sector in the context of the provisions of Directive 2013/36 / EU and Regulation 575 / 2013 related to the banking sector (the so-called CRD IV package).

On January 1, 2018 entered into force the Law on Banks' Activity No. 202 of 6 October 2017, which aims to consolidate the banking regulatory and supervisory framework in the Republic of Moldova (transition from Basel I to Basel III). With the coming into force of the new law, will be subjected to the public consultation the projects of the secondary normative framework subordinated to it, as well as the COREP reporting framework, which will enter into force at different times until the year 2020.

At the same time, the National Bank of Moldova continues to promote other reforms in the banking sector. It focuses on the transparency of the shareholders in order to attract new investors that meet the high quality requirements, on the establishment of solid corporate governance in the banking sector, on the identification of the banks' related parties and on the timely reflection of bad loans in banks' balance sheets.

As of March 31, 2018, in the Republic of Moldova operated 11 banks licensed by the National Bank of Moldova, including 4 subsidiaries of banks and foreign financial groups. During the first quarter of 2018, banking sector assets continued to grow, banks having sufficient capital and capital adequacy, high liquidity and profitability. At the same time, the banking sector maintained the downward trend in lending activity, but the volume of loans granted in the first quarter of 2018 is increasing in comparison to the same period of the previous year. The share of non-performing loans in the loan portfolio during this period has diminished, but remains high, the banks continuing to step up their efforts to reduce the balance of non-performing loans.

MATERIALS AND METHODS

In order to elaborate this paper, a complex research methodology based on the use of scientific research methods was applied, including: synthesis method, comparative analysis, observation method, etc.

RESULTS AND DISCUSSIONS

Until the year 2017, the banking activity in the Republic of Moldova was regulated by the provisions of the international standards Basel I (issued in 1980s), which established the capital requirement for banks, with the goal was to absorb possible losses from the banks' exposures. The Basel I provisions were relatively simple and covered only the credit risk.

The strong growth of the banking sector, the sharp volatility of macroeconomic indicators, and the emergence of new financial instruments tradable on the money market have made the risks that banks faced to impose the need to promote new capital adequacy regulations.

In 2004, the Basel Committee on Banking Supervision issued the Capital Accord (Basel II). Basel II had the goal to create a new basis for the prudential regulation of capital. It offers a wider range of approaches from elementary to advanced methods of measuring credit, market and operational risk to determine the appropriate level of capital. It also provides a flexible structure, banks adopting those approaches that best suit their level of complexity and risk profile.

Basel II used a "three pillars" concept: minimum capital requirements, supervisory review and market discipline.

The pillar I required banks to have capital at least at the level calculated in line with the proposed approaches to cover credit, operational and market risks. It provides two approaches to measuring credit risk: a standardized approach and an internal rating approach.

The pillar II aimed to monitor all risks and allowed supervisors to impose individual requirements on banks, taking into account the risk exposure of each institution. According to Basel II pillar II, in the supervisory process, banks need to calculate capital adequacy based on their own internal risk management methodology.

The pillar III imposed on banks the obligation to disclose the integral information about risks, management, and the sufficiency of their capital, thus increasing transparency and market discipline in the financial sector.

As a response to several shortcomings in the framework of Basel II, that have been highlighted by the global financial crisis in 2008-2009, the Basel Committee on Banking Supervision has created new measures for the global financial system consolidation, published in 2010 as Basel III.

Basel III requirements represent an improvement of risk-based approach of Basel II. The main emphasis is to enhance the capital level of the loss absorption in correlation with the risk of banks' business models. These regulations represent a set of measures to strengthen global capital and liquidity requirements, bank transparency, risk management and corporate governance of the banking system. Basel III efforts are aimed at promoting a banking sector more resilient to the absorption of financial shocks, irrespective of their source, as well as reducing the risk of contagion of the financial sector with the real economy.

Basel III main goals are:

- a) strengthening the quality of capital by increasing the minimum requirement for common equity and tier one capital
- b) introduction of international liquidity standards to provide short-term (30 days) resistance to shocks (liquidity coverage ratio - LCR), and long-term (1 year) solid structural liquidity (net stable funding ratio - NSFR)
- c) the systemic risk mitigation, which consists of several key elements: leverage ratio, measures to avoid pro-cyclicality, etc.

In the context of the NBM strategy of Basel III implementation in the Republic of Moldova, in order to achieve efficiently its goal, were set some objectives [2, p.10-11]:

1. Development of the primary and secondary legislative framework related to banks' activity for the implementation of Basel III
2. Development of the NBM's institutional capacity and on-site and off-site banking supervision instruments, in accordance with the new banking regulatory framework
3. Supervision and coordination the implementation of the new legislative framework in the banks of the Republic of Moldova by the NBM.

It is also very important to strengthen the dialogue with banks from the Republic of Moldova. The banks and the NBM should develop their knowledge in the field of banking activity and challenges of implementing the new framework, particularly in advanced approaches. Thus, NBM undertook the following actions [2, p.14]:

- 1) Required from banks to identify techniques of risk management and internal assessment of capital in banks
- 2) Raised awareness among both banks and supervisory staff on minimum capital requirements and their involvement in risk management processes
- 3) Assessed the level of readiness of banks to implement the package CRD IV, etc.

The NBM shall continuously ensure a dialogue with banks in the process of implementation of the new requirements by various methods, including thematic inspections, self-assessments carried out by banks, regular meetings with the banks' management, etc.

Concerning the insurance of transparency in implementation of the CRD IV/ CRR package requirements, the NBM will properly inform the public and institutions involved about the progress, results and any other information that may be considered useful to external users on the process of drafting the new legislative framework and its implementation at the NBM and supervised entities level.

The existence of qualified and trained staff in Basel III not only within the NBM but also at the level of each bank is a mandatory precondition for the effective and qualitative implementation of the new requirements. Thus, the NBM will promote a policy of attracting qualified human resources and training of existing staff within the domestic banking sector, by identifying additional training options for employees through meetings with the NBM experts, seminars and conferences organized by external donors of technical assistance, professional associations existing in the country. At the same time, the NBM will assess banks' efforts and human resource development strategies by other means and methods identified by them.

With the implementation of the law regulating the activity of banks, the National Bank of Moldova initiated the fundamental review of the banking supervision system, using risk-based supervision, forecasting and approach to the Supervisory, Review and Evaluation Process (SREP). Currently, the NBM has several instruments for the enforcement of sanctioning and supervision measures. Prudential supervision will also be carried out on a consolidated basis and in close cooperation with the foreign supervisors (including participation in colleges of supervisors) and other competent authorities.

It is important to mention that until the year 2018 the main supervisory approach used by the National Bank of Moldova as banking regulation and supervision authority was the compliance

supervision. The on-site and off-site supervision process were performed by using the CAMELS rating methodology.

The CAMELS framework involved the analysis of six groups of indicators:

- Capital adequacy (C): the capital adequacy ratio, the quality of the analyzed capital based on the bank's capital components;
- Asset quality (A): concentration of banking sector assets, concentration of loans by sector, total non-performing loans, total assets / capital, risk-weighted assets / total assets;
- Management (M): this is an indicator of the overall bank's performance and it was analyzed only in the framework of the on-site inspections, given the fact that it is difficult to assess the quality of the management at distance, during the off-site supervision process;
- Profitability (E): return on assets, return on capital, interest income, interest charges, net interest margin;
- Liquidity (L): liquid assets / total assets, total loans / total deposits, liquid assets / total deposits;
- Market risk sensitivity (S): currency risk generated by open foreign exchange position, interest rate risk, etc.

The rating of each of the 6 components is assigned based on a numerical scale of 1 to 5, in descending order of bank performance. Mark 1 means the highest rating, the strongest performance and the most effective risk management methods, while mark 5 indicates the lowest rating and inadequate risk management methods.

Based on the individual rating of the six groups of indicators, is determined the overall bank's rating. An overall rating of "1" or "2" indicates a strong bank, which means that any problem occurred in the activity of the bank is minor and can be corrected by the bank's management. The compound rating "3" shows that the bank has certain weaknesses that need to be corrected. Supervisors must monitor the banks classified in this category more closely. Rating "4" or "5" expresses that the given banks are experiencing serious problems with a very high probability of bankruptcy in the future.

The main disadvantage of the CAMELS rating approach is that it offers information about a bank's performance at a given point in time, being a kind of historical monitoring. CAMELS do not offer the possibility to foresee some specific risks in the banks' activity.

That's why, the necessity to change the NBM's supervisory approach from compliance supervision to the risk-based supervision conditioned to introduce from the year 2018 the SREP methodology in the national supervisory framework.

The role of SREP is fundamental in assessing the risks to which the banks are exposed. Thus, the SREP process is focused on ensuring that the institutions have sound processes and mechanisms, as well as an adequate level of capital and liquidity to ensure effective risk management.

The SREP framework includes several components, presented in the table below.

Table 1. The components of the SREP framework

| | | | | | |
|-------------------------------------|--|-----------------------------------|---|--|--|
| 1. Institution's classification | | | | | |
| 2. Monitoring of the key indicators | | | | | |
| 3. Business model analysis | 4. Assessment of internal governance and control | 5. Assessment of risks to capital | 6. Assessment of risks to liquidity and funding | | |
| 7. Overall SREP assessment | | | | | |
| 8. Supervisory measures | | | | | |
| 9. Early intervention measures | | | | | |

Source: elaborated by the author based on [4, p. 21]

Concerning the components 3 – 6 it is worth mentioning the following facts:

Business model analysis: supervisors assess the business activity of the bank, whether it has a wide array of activities or whether it focuses on only a few lines of business.

Assessment of internal governance and control: supervisors analyze a bank's organizational structure by monitoring its management bodies and checking whether the risks are being managed properly.

Assessment of risks to capital: supervisors analyze whether a bank has a sufficient capital to absorb losses arising from different risks.

Assessment of risks to liquidity and funding: supervisors check a bank's ability to cover ad hoc cash needs, for example, in times of economic uncertainty when depositors may withdraw much more money than usual.

It should be noted that the new legal framework in the banking field has kept some prudential provisions applicable previously and focuses, in particular, on strengthening internal governance practices and risk management in the banks. New approaches will be also introduced to calculate the regulated capital (funds own capital), the sufficiency of risk-weighted capital (which includes in addition to credit risk and other risks – risk operational, market and other risks related to banking) and liquidity indicators. Besides this, will be introduced new concepts such as financial leverage and associated risk, process internal capital adequacy assessment (ICAAP) and internal liquidity assessment process (ILAAP).

For improving the corporate governance in banks, the Regulation on the bank's management framework, which came into force on 1 July 2017, establishes provisions related to risk management. The banks should meet the requirements on risk management policies and limits on appetite and risk profile that ensure a progressive implementation of the Basel III framework [3, p.9].

In order to summarize the mentioned above facts, the implementation of BASEL III requirements in the national banking supervision framework will mainly include:

a) Checking the compliance of banks with the new prudential standards (Pillar I)

Thus, the reports submitted by banks according to the COREP / FINREP reporting framework, as well as the compliance of the internal regulations elaborated in the context of the new legislative framework, will be checked.

b) Supervision and evaluation process (Pillar II)

The National Bank of Moldova will ensure the verification of the management framework for the activity, strategies, processes and mechanisms implemented by each bank in order to comply with the provisions of the new law and the normative acts issued in its application and will carry out its own assessment of the risks to which the banks are exposed.

At the same time, the NBM will require banks to have a rigorous business activity management framework that includes a clear organizational structure with well-defined, transparent and coherent responsibility lines, effective processes for identifying, managing, monitoring and reporting the risks to which they are exposed (ICAAP), stress-tests, adequate internal control mechanisms, including administrative and accounting procedures.

Increased attention will be paid to management decisions of banks, to the existence of specialized committees of banks' councils, collective and individual responses to the knowledge and skills of members of management bodies, key personnel, etc. At the first stage, the NBM asked all banks to carry out a self-assessment of corporate governance and to take all necessary measures to comply with the legal framework.

According to the article 106 from the Law on Banks' Activity, the National Bank of Moldova shall monitor the banks' compliance with the prudential requirements and other requirements provided by the law and the applicable normative acts, based on the reports submitted by the banks and by on-site inspections [1, p.65].

The National Bank of Moldova, at least annually, should adopt a supervisory examination program for the banks it supervises. It shall mainly contain the following [1. p.65-66]:

- a) the way the National Bank of Moldova intends to carry out its tasks and allocate resources;
- b) an identification of banks which are intended to be subject to enhanced supervision and the measures taken for such supervision;
- c) a plan for onsite inspections at the premises used by a bank, including its branches and subsidiaries established in other states based on cooperation agreements signed by the National Bank of Moldova with the competent authority of the respective country.

CONCLUSIONS

The NBM as the supervisory authority will need to identify an efficient balance between the implementation of Basel III and other supervisory priorities. This approach assumes that the objectives of Basel III means not just the requirement of compliance with the set of rules relating to capital and liquidity. This framework aims at developing adequate infrastructure, developing risk management systems, capital adequacy, market discipline and financial stability and at implementing new supervisory instruments comparable to those of the international banks

Aligning the banking legislation of the Republic of Moldova to the international standards by improving the quantitative and qualitative banks' management mechanisms will contribute to the promotion of a secure and stable banking sector, will increase the transparency, trust and attractiveness of the domestic banking sector for potential investors and creditors of banks, as well as for depositors. The new framework conditions the development of new financial products and services by insuring of a financially stable environment that allows maintaining the financial soundness of banks and of the entire banking system.

REFERENCES

1. Law on Banks' Activity no. 202 of 06 October 2017, 92 p.
(<http://bnm.md/en/content/law-banks-activity-no-202-06-october-2017>)
2. Basel III Implementation Strategy in accordance with the European legislative framework, 16 p.
(<http://bnm.md/ro/content/strategia-de-implementare-standardelor-bsel-iii-prin-prisma-cadrului-legislativ-european>)
3. Regulation on the bank's management framework, 35 p. (<http://bnm.md/ro/printpdf/content/regulamentul-privind-cadrul-de-administrare-activitatii-bancii-aprobat-prin-hce-al-bnm-nr146>)
4. Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP), EBA/GL/2014/13, 19 December 2014, 218 p.
([https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+\(Guidelines+on+SREP+methodologies+and+processes\).pdf](https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+(Guidelines+on+SREP+methodologies+and+processes).pdf))

OPTIMIZATION OF MONETARY POLICY THROUGH THE INFLATION EXPECTATIONS MANAGEMENT

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Abstract. This article analysed the aspect of optimal monetary policy in line with inflation expectations, becoming the focus of modern central banks, which have greatly relied on institutional credibility and transparency that gives topicality to the subject of research. The inflation expectations management in the Republic of Moldova is an unexplored side that would optimize the monetary policy promoted by the National Bank of Moldova. The practical research focused on defining the role of inflation expectations in Poland in order to achieve the objective of price stability, concluding a strong linear correlation between inflation and inflation expectations. At the same time, the emphasis was put on monetary policy assessment in the Republic of Moldova, based on the application of the conditionalities, which imply the inflation expectations formation, such as institutional transparency, independence and accountability. Based on the study, we concluded that the credibility of the central bank against the backdrop of central bank transparency is critical for inflation expectations anchoring. The Poland's practice would serve as an example to be followed for the Republic of Moldova in terms of inflation expectations anchoring.

Key words: inflation expectations, central bank, inflation, monetary policy.

JEL CLASSIFICATION: E31, E32, E52, E58.

INTRODUCTION.

The importance of the investigated subject lies in the concern of contemporary central banks, which pursue the objective of ensuring and maintaining price stability in order to promote an optimal monetary policy, being capable to achieve the primary goal proposed by the monetary authority. In this context, an important element for the successful implementation of monetary policy is the ability of the central bank to manage and anchor the inflation expectations. It is essential that inflation expectations to be well anchored, as this allows central banks to achieve price stability while helping to reduce the volatility of other important variables, such as interest rates and revenues. The central bank, pursuing the inflation goal, increases the credibility of monetary policy by focusing on accountability, transparency and an effective communication strategy, which directly contribute to anchor the inflation expectations. Therefore, the inflation expectation anchoring requires that the central bank need to be credible. Thus, the success of the inflation expectation anchoring is based on the confidence of market participants in the monetary authority.

The inflationary psychology causes immense damage for the economic conjuncture of a state, given the fact that the actions taken by people in order to protect themselves against inflation affect investment, saving and consumption. In the context of an anticipated inflation, the rational distribution of financial resources would be more productively. These are the costs that a central bank must keep under control, ensuring the inflation expectation anchoring within the variation corridor of the inflation target.

The purpose of the research consists in defining the optimal monetary policy framework in terms of inflation expectations from the perspective of ensuring the objective of price stability.

In order to achieve the proposed goal were formulated the following objectives:

1. Identifying the importance of inflation expectations for the contemporary economy in the views of famous economists;
2. The role of inflation expectations within the monetary policy transmission mechanism;
3. Defining the relationship between inflation expectations and the credibility of the central bank;
4. Specifying the conditionality of inflation expectations anchoring from the perspective of reducing the costs associated with disinflation;

5. Researching the international experience in the area of optimal monetary policy through the inflation expectation anchoring (example of Poland), as well as the quantification of the degree of correlation between the inflation variable and inflation expectations, respectively;

6. Evaluation of the inflationary process in the Republic of Moldova with the identification of strengths and weaknesses related to the direct inflation targeting regime in terms of inflation expectation anchoring.

MATERIALS AND METHODS.

The bibliographic data analysis in the field of the researched problem. The theoretical and practical aspects related to the interdependence between the institutional framework associated with the transparency, accountability, independence of the central bank and the inflation expectations anchoring from the perspective of ensuring price stability were mainly approached in the working papers of economists from abroad: S. Blinder, M. Woodford, B. Bernanke, M. Ehrmann, M. Fratzscher, J. Hann, D.-J. Jansen, S. Eusepi, B. Preston, N. Dincer, B. Eichengreen, Eijffinger, P. Geraats, Cukierman, M. Isărescu, S. Cernă.

The studies and researches of the aforementioned authors represent a significant theoretical and practical value. At the same time, it should be noted that the aspect of optimal monetary policy through the inflation expectation management remains intact and has not been subject of research in the Republic of Moldova.

Research methods focus mainly on theoretical proceedings, such as:

- the scientific abstraction method – by which we eliminated the nonessential and irrelevant, provisional and adventitious concepts and theories and, respectively, we separated those ideas and foundations, which reveal the essential, general and relevant character in order to defining the aspects related to the inflation expectations and their role in the context of an optimal monetary policy;

- the induction and deduction method – contributed to orient the author's capability towards the research, from knowing the particular to highlighting the concepts, hypotheses and assumptions with generality character, and vice versa, to apply the conclusions made in form of theses and principles for the analysis of real facts;

- the analogical and comparative method – reflected the comparable aspects regarding different views in the literature of speciality on the importance of inflation expectations for the optimal monetary policy, as well as the research of international experience in this field, thus contributing to the identification of own conceptions related to the optimization of the monetary policy in the Republic of Moldova;

- the analysis method – defined the aspects related to the evolution of the inflationary process in Poland and in the Republic of Moldova, as well as estimating the degree of correlation between the inflation and inflation expectations in Poland.

Depending on the character of the research, the research method is predominantly applicative, interdisciplinary, descriptive and causal.

RESULTS AND DISCUSSIONS.

The inflation expectation anchoring has become the indispensable prerogative of the modern central banks. Trichet [6], being the President of the European Central Bank, said that „It is absolutely essential to ensure that inflation expectations remain firmly anchored in line with price stability over the medium term”. Bernanke [1], being the President of the Federal Reserve System, argues the idea that inflation expectations largely influence current inflation rate and the ability of the central bank to ensure price stability and firmly supports Mishkin's [5] statements, as well as „...the extent to which inflation expectations are anchored has first-order implications for the performance of inflation and of the economy more generally”. At the same time, emphasizing the reasoning that the inflation expectations represent a useful tool with implications from a central bank's credibility and institutional framework in order to fight with inflation. However, the

Governor of the Bank of England, King [4, p.7] argues that „...the real influence of monetary policy is less the effect of any individual monthly decision on interest rates and more the ability of the framework of policy to condition inflation expectations”.

Nonetheless, the inflation expectations serve as a benchmark and variable taken into account in the elaboration process of the medium-term inflation forecast. Thus, Forsells and Kenny [3] follow the idea that inflation expectations as a predictor of future inflation, the quantitative measures of expected inflation may be an important variable of information taken into account in forward-looking assumptions and in the monetary policy decisions. Forsells and Kenny [3, p.25] remarked that „...the measures of inflation expectations, a key variable that a central bank can use in its design of an optimal monetary policy geared toward the achievement of price stability.”

In line with the aforementioned concepts, the inflation expectations importance is reflected by the fact that the inflation expectations:

- influence the behaviour of economic agents, in terms of consumption, savings and investment decisions;
- of the different groups of economic agents indicate the confidence degree in the central bank, the credibility of the inflation targets and whether these objectives appear to be achievable, representing the crucial indicator of central bank credibility;
- can play an important role in price formation in the conditions in which they are properly managed by the central bank. Maintaining low and stable inflation expectations supports the economy more durable and resistant against the adverse shocks and allows working more efficiently for the pricing mechanism of the economy.

Therefore, the inflation expectations importance for the inflation rate and for the monetary policy is confirmed by the New Keynesian Phillips curve. Hence, the ability of central banks to achieve price stability is often directly linked to their capacity to anchor the inflation expectations in the target. The disinflation costs are smaller in the circumstances when inflation expectations are well anchored and the future oriented component is higher, consequently it is important to understand if the anchors are expected. In order to assess the degree of inflation expectation anchoring is more informative to investigate the long-term evolution of inflation expectations. In practice, the inflation expectations are well anchored when the gap between expectations and the inflation target is low enough.

▪ *Phillips curve – open economy*

$$\pi_t = \beta E_t \pi_{t+1} + \eta(y_t - y_t^n) + \lambda(z_t - z_t^n) \quad (1.1)$$

where

π_{t+1} – expected inflation;

$(y_t - y_t^n)$ – GDP deviation;

$(z_t - z_t^n)$ – exchange rate deviation.

Formula 1.1 gives points to the role of inflation expectations in an open economy, identifying that current inflation is variable depending on gross domestic product deviation, inflation expectations and exchange rate deviation.

▪ *New-Keynesian Phillips Curve – open economy and monopolistic competition*

$$\pi_t = b_1 \pi_{t-1} + (1 - b_1) E_t \pi_{t+1} + b_2 CRM_t + \varepsilon_t^\pi \quad (1.2)$$

where π_{t-1} – past inflation; π_{t+1} – expected inflation; CRM_t – real marginal cost.

$$CRM_t = b_3 \hat{y}_t + (1 - b_3) \hat{c}_t \quad (1.3)$$

where \hat{y}_t – GDP deviation, approximating the real marginal cost of domestic producers; \hat{c}_t – the deviation of the real exchange rate, which approximates the real marginal costs of the importers.

Formula 1.2 underlines the role of inflation expectations in an open economy in the context of monopolistic competition, suggesting that current inflation is variable depending on past inflation,

expected inflation and real marginal cost, the last being conditioned by the gross domestic product deviation and the deviation of the real exchange rate (formula 1.3).

The macroeconomic theory outlines that the transmission of monetary policy impulses and their impact on the real and nominal sectors of the economy are closely linked to inflation expectations. The researches carried out in this field highlighted the importance of inflation expectation anchoring in order to give a maximum of efficiency and optimality for monetary policy, and the international experience demonstrated the need to define inflation expectations as the channel for the monetary policy transmission mechanism to the real economy. The assimilating of proper functioning of the transmission mechanism denotes the correctness of choosing the right tools in order to correct the possible monetary policy errors with minimal costs and maximum effects.

The transmission models used in the developed countries differ from those of the emerging countries; first countries are characterized by the existence of variables and links interdependent with the activity of the economic agents, while the transmission mechanism in the emerging countries depends on a series of national and international determinants. The conditions under which the monetary policy strategy is developed play a decisive role in underling the monetary policy transmission mechanism, making mention of the possible fluctuation of the inflation rate, the level of banking sector development, as well as the estimation of the potential economic conjuncture.

In the speciality literature, it can be identified several monetary transmission channels (Figure 1). However, the subject of this research is limited to identifying the role and location of the inflation expectation channel.

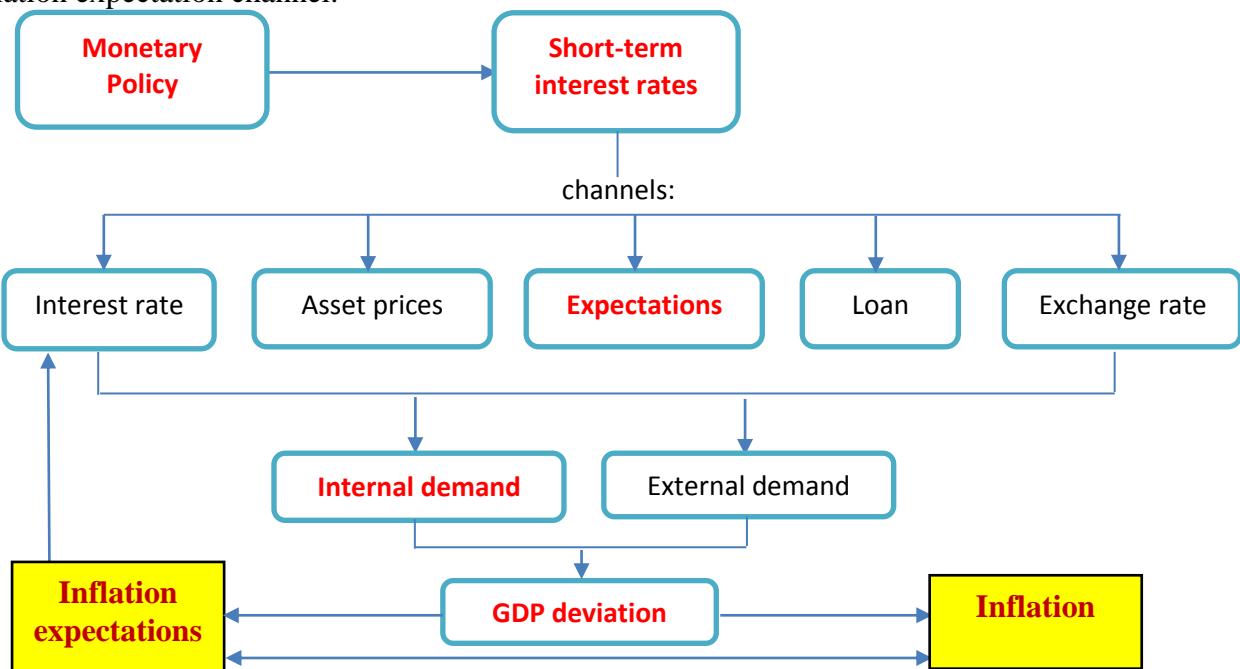


Figure 1: Role of inflation expectations in the context of the monetary policy transmission mechanism.

Source: elaborated by author.

Depending on their nature, the inflation expectations may play an important role in price formation process. By affecting the real interest rates, the changes in inflation expectations can contribute to changes in aggregate demand, which may then affect prices. In terms of cost-cutting effects, an increase in the expected inflation rate may cause a higher wage settlements demand from employees. At the same time, the economic agents can see incentives for increase the prices and be more willing to pay higher wages, anticipating the higher costs generated by inflation in the future.

The companies can temporarily suspend the sale of their products, because the prices are not adjusted immediately. All these interactions, combined with one another, can contribute to an increase in demand and a simultaneous decrease in supply. In this way, an increase in inflation expectations generates a rise in prices.

On the other hand, long-term market rates are affected by monetary policy rate expectations; with the rise in the monetary policy rate, the long-term rates will increase. At the same time, the increase in inflation expectations will reflect in long-term rate increase (figure 1).

At the same time, an important remark concerning the propagation effect through the transmission channels implies that the inflation expectations channel can be combined with any other channel in the context of the modern economy, which develops in an environment of information that is constantly updated in order to optimize the monetary policy objective.

A theoretical and applicative approach of inflation expectations anchoring stems from the credibility of the central bank. In this respect, any attempt to reduce inflation results in recession. The quantity of lost production is explained by the sacrifice ratio. The sacrifice ratio is the ratio between the cumulative loss of gross domestic product (due to disinflationary policy) and the inflation decrease, which is actually achieved. The aggregate demand decline due to inflation and the production decrease as well. Therefore, the sacrifice ratio is the cost of combating inflation or the disinflation cost. Overall, it should be mentioned that a credibility of monetary authorities brings benefits (figure 2) from the perspective of ensuring monetary policy objective in terms of inflation expectations anchoring and with implications on the economy, thus helping to mitigate the recession degree.

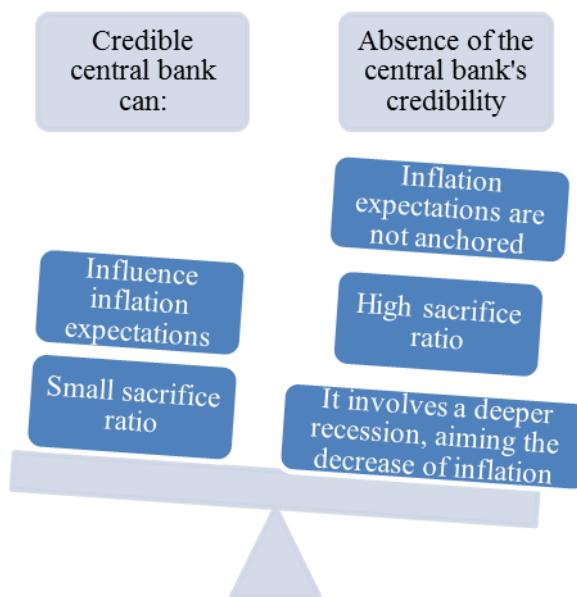


Figure 2: The interdependence between the inflation expectations and the credibility of the central bank.

Source: elaborated by the author.

The conditionalities of inflation expectations anchoring from the perspective of cost decrease related to disinflation are:

1. Announcement of monetary policy in advance - transparency of the central bank;
2. Gradual deceleration of inflation and not a rapid one;
3. Credibility of disinflation policy;
4. Increased independence of the central bank;
5. Central bank accountability.

Thus, the ability of the central bank to manage the inflation expectations by communicating how monetary policy is promoted confers optimum on monetary policy – the fact confirmed by international experience.

Researching the quantification of inflation expectations on the international arena, we noticed that most central banks use a survey conducted according to individuals, legal entities and economic analysts, using a weighting criterion to obtain a quantitative final result of inflation. The results of such a survey can be seen in figure 3, taking as an example the evolution of inflation expectations in Poland.

Figure 3 shows that the red band is predominant for the analysed period, meaning that the general public expects an increase in inflation with similar steps with the current level of inflation, as well as being reflected the credibility in the monetary authority. We refer to the increase of inflation, which is faster than the current inflation rate at the end of the analysed period – fact confirmed by figure 4. Figure 4 shows that the inflation rate increased from the level of -1.3% up to 2.4%, thus placing close to the inflation target of 2.5% proposed by the National Bank of Poland. Thereby, there is an example worthy to follow; the inflation expectations were successfully anchored in Poland.

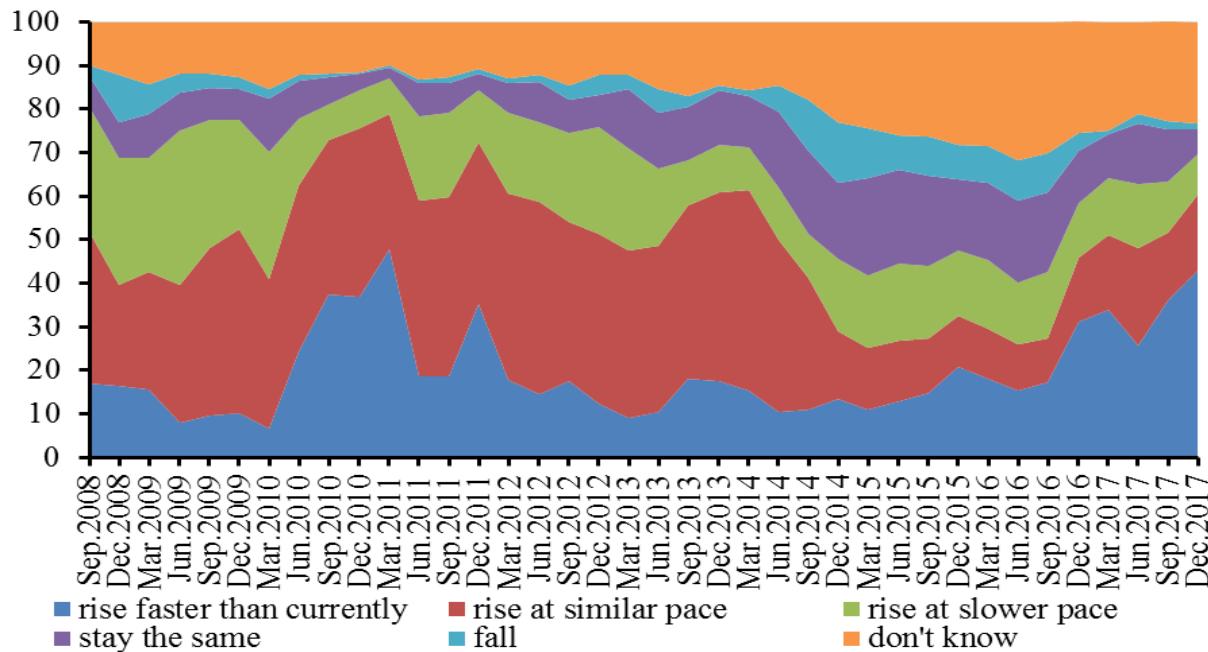


Figure 3: The evolution of inflation expectations in Poland.

Source: elaborated by the author based on the official website of the National Bank of Poland.

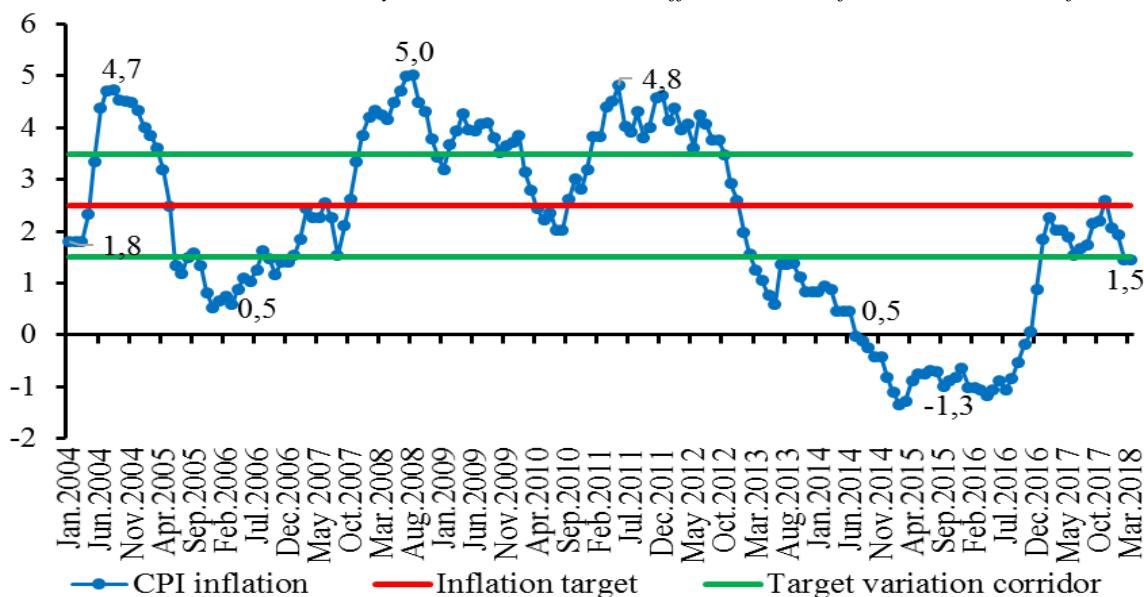


Figure 4: The monetary policy performance from the perspective of ensuring the inflation objective.

Source: elaborated by the author based on the official website of the National Bank of Poland.

In this context, in order to confirm the correlation between the inflation expectations and the inflation rate in Poland, it was calculated the correlation coefficient of these two variables, using the EViews program. The results are shown in figure 5. It should be noted that the correlation coefficient recorded values of about 0.934, which means a very strong positive correlation between the inflation expectations and the consumer price index evolution in Poland.

Covariance Analysis: Ordinary

Date: 04/25/18 Time: 14:41

Sample: 2004M01 2016M06

Included observations: 150

| Correlation Probability | CPI | INF_EXP |
|-------------------------|----------|----------|
| CPI | 1.000000 | ----- |
| INF_EXP | 0.933791 | 1.000000 |

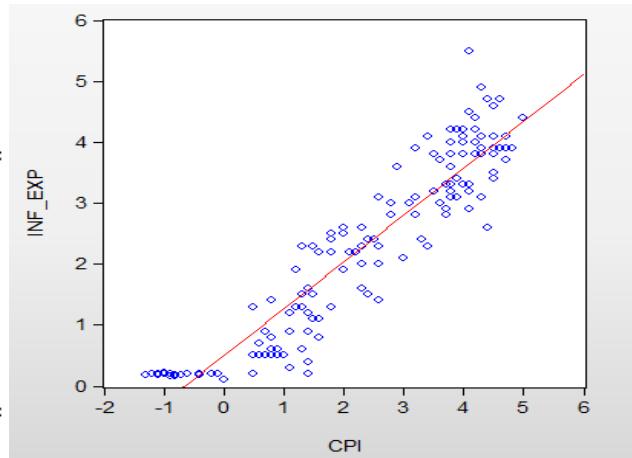


Figure 5: The degree of correlation between inflation expectations and the evolution of CPI inflation in Poland.

Source: author calculations in the EViews program, primary data (inflation expectations and CPI) are available at National Bank of Poland official website.

The strong correlation between these two variables was conditioned by increased credibility in the monetary authority. It should mention that following the objective of price stability, the National Bank of Poland greatly relied on the transparency and communication of monetary policy through the following communication tools:

- Monetary Policy Guidelines: the document contains an analysis of the external and internal factors that condition the monetary policy during the following year, the political objectives and the instruments for achieving them.
- Report on Monetary Policy: the report analyses the performance against the inflation objectives, the development of monetary aggregates and monetary policy instruments as set out in the Monetary Policy Guidelines;
- Monetary policy strategy;
- Schedule of Monetary Policy Council meeting;
- Minutes of the Monetary Policy Council decision-making meeting with the individual members' views on the decision taken;
- Voting results of the Monetary Policy Council members;
- Opinion of the Monetary Policy Council on the Draft Budget Act – play the important role in the interaction of monetary policy with fiscal policy;
- Monetary Policy Council press conferences;
- Press releases related to the monetary policy decisions;
- Inflation Reports;
- Working papers, study books, educational projects.

At the same time, the National Bank of Poland is also transparent regarding the publication of projected macroeconomic indicators. Thus, the National Bank of Poland, in addition to the macroeconomic forecasting model, publishes the forecast of the following macroeconomic indicators:

- inflation (quantitative) - since 2004;
- gross domestic product (quantitative);
- interest rate (quantitative) - WIBOR 3M;
- labour market indicators (quantitative).

Referring to the Republic of Moldova, we observe that the monetary policy in the Republic of Moldova faced with an increased volatility of the inflationary process (figure 6), from a hyperinflation in the period of 1992 to 1994 up to a disinflation in 2009 and a price stability in the period of 2012 to 2015 (figure 7), with the implementation of the inflation targeting regime. The inflation was galloping one in 1995 and 1999, and open or moderate inflation was registered between 1996 - 1998 and 2000-2008, respectively.

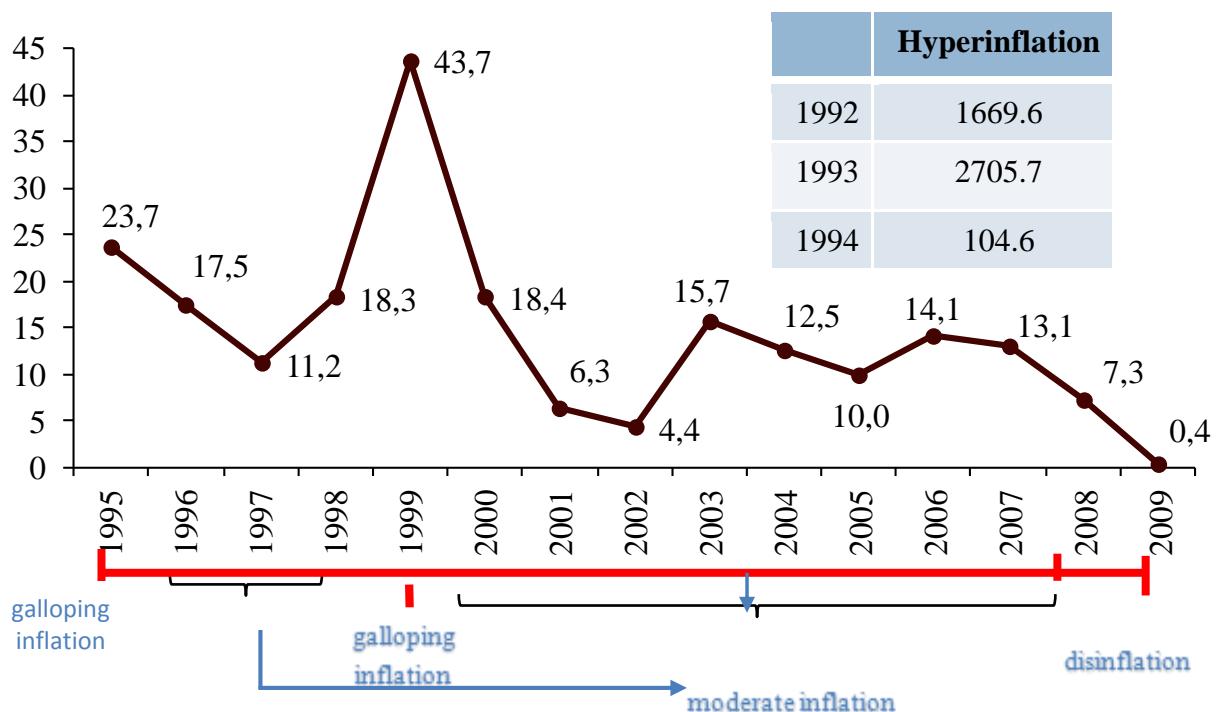


Figure 6: The evolution of annual inflation rate in the Republic of Moldova (%) until the transition to the inflation targeting regime.

Source: elaborated by the author based on the NBM and NBS' official website.

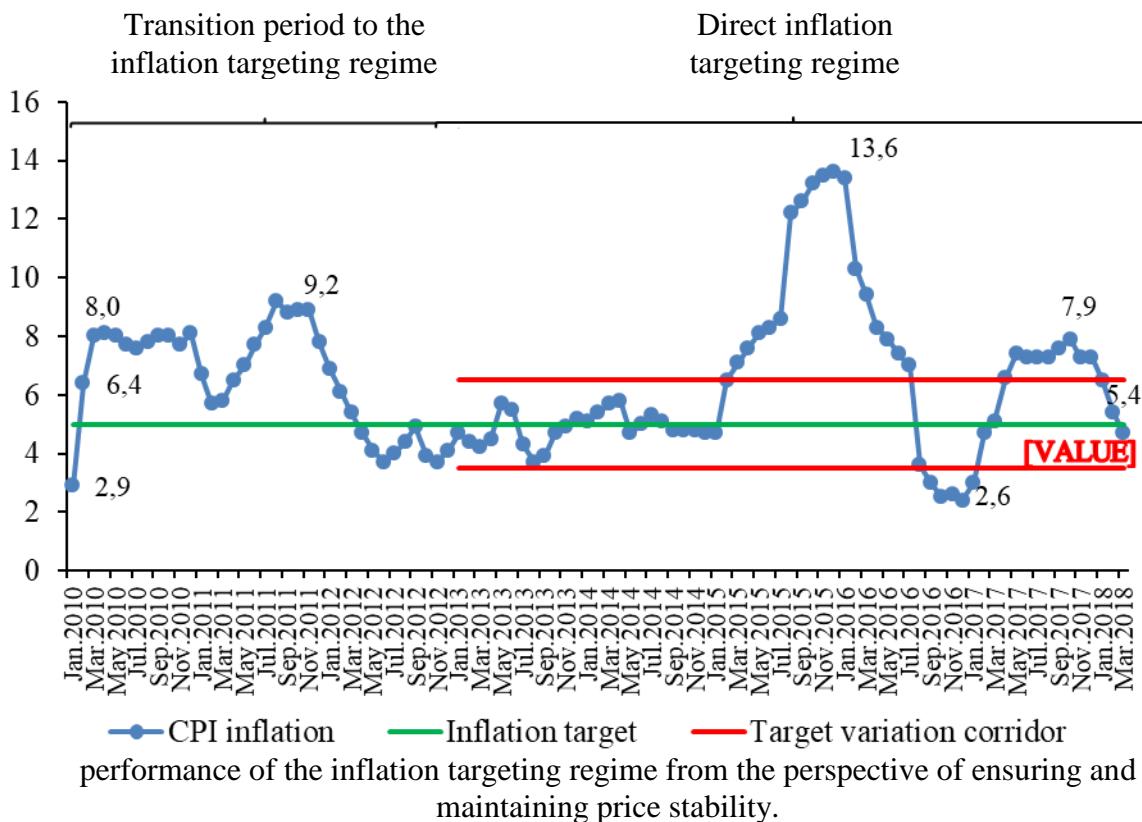
Since 2006, then in the Law on the National Bank of Moldova was changed the primary objective from the national currency stability assurance to ensuring and maintaining price stability, the evolution of inflation in the Republic of Moldova consolidated its overall downward trend. This change in the institutional framework has completed the first premises for the implementation of the direct inflation targeting regime.

From figure 7, we note that the direct inflation targeting regime has mitigated the inflationary process in the Republic of Moldova, but has also imposed a number of challenges in the perimeter of transparency and inflation expectation anchoring. During the transition period to the direct inflation targeting regime, the National Bank of Moldova used a broad spectrum of communication tools compatible with the regime itself, thus contributing to the enhancement of institutional credibility, that is reflected in the evolution of the annual inflation rate and its positioning close to the inflation target of 5% in 2012-2015.

The most important tools of communication include:

- the medium-term monetary policy strategy of the NBM - a document containing the monetary policy framework, along with its main stance and instruments;
- the press releases related to the monetary policy decision and inflation developments;
- the inflation reports;
- the ordinary press conferences on the presentation of inflation reports;
- the briefings after each monetary policy decision, explaining the fundamentals of certain decisions-making;
- the schedules on monetary policy decisions;

- the schedules on inflation report publication.



Source: elaborated by the author based on the NBM's official website.

Although, the National Bank of Moldova has become more transparent and diversified the channels and tools of communication as the transition to the inflation targeting regime in 2010, some gaps have been identified that affect the inflation expectation anchoring with repercussions on monetary policy. In this context, the minutes of the Executive Board meetings on monetary policy decisions, as well as the personalized votes of the members of the Executive Board related to decisions on the evolution of the base rate and reserve requirements ratio are not public at the moment, thereby endangering the institution's credibility from the general public.

At the same time, compared to the National Bank of Poland, we observe that the National Bank of Moldova is reserved in the area of forecasted indicators publication, publishing only quantitative inflation forecast and providing reflections on the gross domestic product deviation forecast. Although the inflation expectations survey persists, but its results are not published, thus affecting the domestic demand and limit the investment decisions and the rational distribution of financial resources in the economy.

CONCLUSIONS.

- The macroeconomic theory and international practice demonstrated that the inflation expectation channel plays a decisive role in promoting an optimal monetary policy, becoming an indispensable necessity for modern central banks capable of ensuring the proposed objectives, such as ensuring price stability and, on the medium-term, sustainable economic growth;
- The credible central banks can manage the inflation expectations in particular through transparency, accountability, communication of past, present and future actions;
- The effective management of inflation expectations in order to optimize monetary policy involves ensuring a well-defined institutional mandate with repercussions on the credibility of the central bank;
- The international experience has confirmed, under the practice aspect, the role of inflation expectations in pursuing the inflation target;

- The application of econometric techniques has demonstrated the increased correlation between inflation expectations and the evolution of inflation in Poland;
- The inflationary process in the Republic of Moldova has moderated with the implementation of the direct inflation targeting regime, increasing the transparency, independence and communication of the NBM.

The reluctance to communicate some aspects of monetary policy, mentioned in the identified gaps, offers the site for remediation of the NBM credibility process in order to optimize monetary policy thought the inflation expectation anchoring.

REFERENCES:

1. BERNANKE, B. *Inflation expectations and inflation forecasting*, Speech at the Monetary Economics Workshop of the National Bureau of Economic Research Summer Institute, Cambridge, Massachusetts, 10 July 2007, <https://www.federalreserve.gov/newsevents/speech/bernanke20070710a.htm>
2. CHRISTELIS, D., GEORGARAKOS, D., JAPPELLI, T., ROOIJ, M. *Trust in the central bank and inflation expectations*, De Nederlandsche Bank NV: Working Paper No. 537, 2016, 43 p.
3. FORSELLS, M., KENNY, G. *The rationality of consumer inflation expectations: survey-based evidence for the euro area*, European Central Bank: Working Paper No. 163, 2002, 40 p.
4. KING, M. *Monetary Policy: Practice Ahead of Theory*, Bank of England: speech at the Mais Lecture, Cass Business School, London, 17 May 2005, p. 7, <https://www.bankofengland.co.uk/-/media/boe/files/speech/2005/monetary-policy-practice-ahead-of-theory.pdf?la=en&hash=6510DD02A81369A89F1C4D7576F635CDCFC28DBD>
5. Mishkin, F. *Inflation Dynamics*, National Bureau of Economic Research: Working Paper No. 13147, 2007, 26 p.
6. TRICHET, J.-C. *The ECB's enhanced credit support*, European Central Bank: speech, 13 July 2009, <https://www.ecb.europa.eu/press/key/date/2009/html/sp090713.en.html>.
7. WOODFORD, M. *Inflation Targeting and Optimal Monetary Policy*, Annual Economic Policy Conference, Federal Reserve Bank, October 16-17, 2003, 54 p.
8. <http://www.nbp.pl>
9. <http://bnm.md>

THE FINANCIAL INSTRUMENTS OF MANAGEMENT OF ECONOMIC ENTITIES WITH PUBLIC PROPERTY IN THE REPUBLIC OF MOLDOVA AND EUROPEAN COUNTRIES

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Abstract. Currently, in the Republic of Moldova has been started the transition from the decentralized management model of the state-owned economic entities to the centralized management model, together with the reorganization process of state enterprises and municipal enterprises in public institutions or joint-stock companies, in order to improve the management and efficiency of these entities. The theme of the research has a major importance, focusing on the identification of ways, methods, and instruments for enhancing the efficiency of economic entities with public ownership. The scope of the research is to synthesize, and analyze the main financial instruments used at national and European level in the management of economic entities with public ownership and to perform a comparative analysis of applied financial instruments. As a result of the research, proposals are formulated for implementing new tools in the management of these entities in the Republic of Moldova, based on the European best practices identified. The analytical methods, the descriptive method, the quantitative and qualitative analysis method, the logical framework methods were used to achieve the research goal.

Key words: economic entity with public ownership, financial instruments of management, fiscal risks.

JEL CLASSIFICATION: G300, G320, G380

INTRODUCTION.

The economic entities with public ownership (SOEs) continue to perform important social functions, by managing public property, being significant operators and employers in different sectors, both in developed and developing countries. Although globally there is a tendency of selling, corporatisation or privatization of SOEs due to their low performance, high level of arrears and debts accumulated, a significant share of these, especially strategic ones, remains the property of the state.

In the Republic of Moldova, SOEs assets (state enterprises and joint stock companies with fully or majority state ownership) account for more than 32% of GDP in 2015 and about 10% of corporate sector's assets. Based on 2016 data, SOEs employ 13% of the working population. The top ten SOEs control more than 74% of the total SOEs assets and are engaged in nationally important activities and infrastructure, such as gas import and distribution, electricity networks, telecommunication, railways, transport, including national airline and roads infrastructure [1].

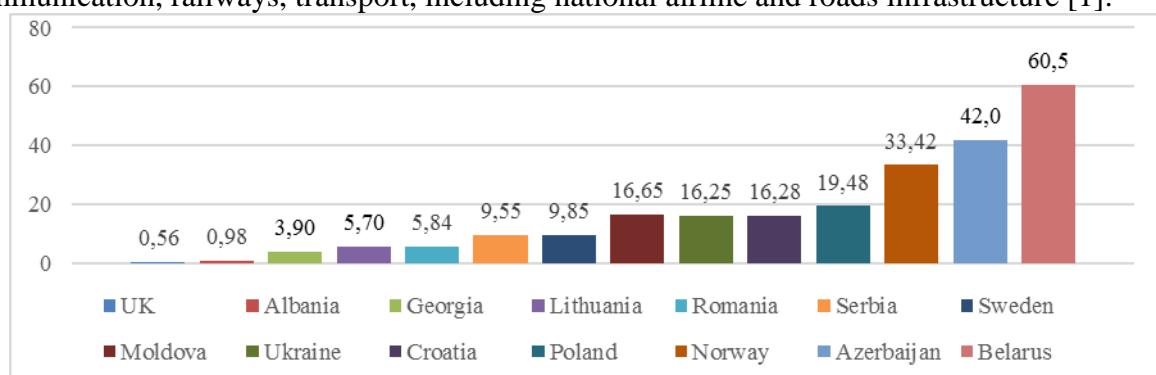


Figure 1. The annual aggregated turnover of SOEs in European countries, % of GDP

Source: [1]

The Republic of Moldova SOEs financial performance as a whole has worsened in recent years, due to the unreformed public sector and poor SOEs governance. The financial discipline of the Republic of Moldova SOEs needs to be strengthened, the state being at the early stage of

developing a system of fiscal risk assessment for the national public budget. Public-owned entities are a potentially important and common source of fiscal risks, being included in the contingent fiscal risks category for the state budget. Respectively, in the event of major financial difficulties in these entities, especially when the economic entity is strategically important for the country, the state may be required to financially support the entity, either by capital injections or by canceling the accrued debts to the budget, which in fact leads to an increase in budget expenditures and hence budget deficit. Even if the Moldovan legislation establishes that the state is not responsible for the obligations assumed by the state enterprise, as the enterprise does not bear responsibility for the state obligations, the understanding and perception of the citizens implies that the state has an obligation to intervene in the recovery of the unfavorable economic situation created in a SOE, to cover its losses or to recapitalize it, in order to ensure the protection of the public interest.

Nonetheless, the SOEs are an important factor in sustainable economic development both for developed and developing countries, the problem itself not being represented by the entity with public ownership, but by how the human resource involved, manages and invests through it [2]. Therefore, the relevance and importance of the research topic lies in the fact that publicly owned economic entities need to be managed efficiently, using modern financial instruments adjusted to international best practices, to help minimize the risks for the state budget as well as welfare and the sustainable development of the economy as a whole.

RESULTS AND DISCUSSIONS.

Diagnostic analysis of financial instruments of management of economic entities with public ownership in the Republic of Moldova. In the Republic of Moldova, the activity of economic entities with public ownership is governed particularly by the Law on Entrepreneurship and Enterprises, the Law on Public Property Management and Denationalization, the Law on State and Municipal Enterprise, the Law on Joint Stock Companies, and a series of secondary normative acts elaborated for the implementation of specialized laws. The national legal framework provides for the possibility of managing economic entities with public ownership through different financial instruments, such as: financial monitoring, financial statement audit, dividend policy, limitation of charity and sponsorship, procurement policy, remuneration of the entity's manager and the governing bodies etc.

The financial monitoring of the activity of state enterprises and joint-stock companies with fully or majority state capital is ensured by the Ministry of Finance, starting with 2005, based on the International Monetary Fund (IMF) recommendations, having the main purpose to identify the primary signs of fiscal risk that a state-owned entity may create for the budget. The financial monitoring of the municipal enterprises and commercial companies with the administrative-territorial unit share in the social capital is performed by the local public authorities. The financial monitoring is based on a clearly defined process, which also allows interested parties (Government, Public Property Agency, citizens) to be informed about the results of the activity of state-owned economic entities over a certain period of time. Also, in order to promote transparency in the budgetary sphere, the information related to the financial monitoring results it is presented as a reference material for the informative note on the draft annual budgetary law, to properly inform also the Moldovan Parliament.

The process of financial monitoring has been improved over time, being developed and supplemented with new sources of financial information on the activity of state enterprises and joint stock companies with majority state capital, as well as new financial performance indicators. At the same time, based on the recommendations of the Court of Accounts, the financial monitoring process needs to be reviewed and concretize certain stages, functions, responsibilities based on the findings of the audit mission [3].

The financial monitoring carried out by the Ministry of Finance for the results of 2016, according to the table 1, was performed for 181 state enterprises, 24 joint stock companies with

majority state capital (50% + 1 share) and 13 joint stock companies with fully state capital (100% state share).

Table 1. The consolidated information on the number of state enterprises and joint stock companies with state capital, according to the public property Register, at 31.12.2016

| | State enterprises | | Joint stock companies | | | Units | |
|---|-------------------|--------------------------|--|--------------------------|--|-----------|--|
| | Units | Social capital (mil.lei) | With state quota in the social capital | | of which with a state share of more than 50% | | |
| | | | Units | Social capital (mil.lei) | | | |
| Total according to the public property Register | 242 | 6497,7 | 103 | 5272,8 | 3878,9 | 70 | |
| <i>of which:</i> | | | | | | | |
| - on the territory of Ukraine | 6 | 26,9 | - | - | - | - | |
| - in the liquidation, reorganization or insolvency proceedings | 28 | 241,4 | 36 | 564,8 | 347,4 | 22 | |
| - do not carry out activity but are registered at the Public Services Agency | 20 | 22,1 | 14 | 26,5 | 15,5 | 11 | |
| Included in the monitored list, by MoF in 2016 | 188 | 6207,3 | - | - | - | 37 | |
| - did not submit the financial statements for the year 2016 to the National Bureau of Statistic | 7 | 4,3 | - | - | - | - | |
| Subject to the financial monitoring for 2016 | 181 | 6203,0 | - | - | - | 37 | |

Source: elaborated by the author based on data published in the source [11]

Also, according to the amendments to the normative framework, the Ministry of Finance introduced mandatory reporting on the size and circulation of public property, by the state enterprises and joint stock companies with fully or majority state capital, on a quarterly basis, in electronic format through the portal www.servicii.fisc.md [4]. The report on the size and circulation of public property includes mainly the balance sheet indicators (assets size, including their components, size of equity, debt amount, including their components etc.), profit and loss statement indicators (volume of sales, size of expenses, operating results, net profit / losses etc.), as well as other additional information. Through this quarterly reporting tool, it is intended to step up the monitoring of state-owned economic entities on the basis of complex information that will allow the early identification of potential risks from their activity.

In addition to the financial monitoring carried out, starting with 2017, in the context of elaborating the draft of state budget law for 2018, on the IMF recommendations, it was prepared a note on fiscal-budgetary risks, designed to ensure the identification, disclosure, quantification and mitigation of the fiscal risks in the Republic of Moldova, being an important tool for coherent and transparent management of the fiscal risks. In the context in which the insolvency of an economic entity with public ownership is a part of the contingent risks category for the state budget, the note on fiscal-budgetary risks also includes an analysis, of the financial situation of state enterprises and joint stock companies with fully or majority state capital, in order to identify high-risk sectors and entities. For the draft of state budget law for 2019, the note on fiscal-budgetary risks will reflect the SOEs analysis using additional data on the debts of entities and their trends, as well as will quantify the related risks, and for 2020 - an analysis of indicative scenarios, and stress tests for the main entities with public ownership. The note on fiscal-budgetary risks also describe measures taken by authorities to reduce and manage the different fiscal risks related to the activity of SOEs [5].

The external/ independent audit of financial statements is another financial instrument for the management of SOEs. The joint stock companies with state quota in the social capital 50%+1 share are obliged to audit the annual financial statements, and state enterprises perform the mandatory

audit of the annual financial statements if they meet the criteria set by the law. The legal framework does not require the mandatory audit of financial statements for the joint stock companies with local public share in the social capital and it may be carried out at the discretion of the governing bodies of those entities. Starting with 2018, according to the Law on State and Municipal Enterprise, the municipal enterprises will perform the mandatory audit of the annual financial statements if they meet the criteria set by the law.

The degree of the Government monitoring of state enterprises and joint stock companies with fully or majority state ownership is assessed by international bodies on a permanent basis, one of these exercises being the PEFA (Public Expenditure and Financial Accountability Program). The PEFA evaluation involves a regular diagnosis of the performance of PFM systems (Public Finance Management), based on an internationally accepted methodological framework. This assessment provides an PFM performance analysis according to a predefined list of indicators and aims to demonstrate the progress of the PFM over time, as well as allows regular and periodical monitoring of PFM systems by stakeholders. In the evaluation Reports on Public Finance Management performance from 2006, 2008, 2011 and 2015, the results obtained in the PI-9 indicator *Supervision of the total fiscal risk from other units of the public sector* were appreciated to be considerable, for which the following target was set: all state enterprises and joint-stock companies present to the Government the financial statements no less than once in 6 months, as well as the audited annual financial statements, and the Government consolidates the information on fiscal risks and reflects it in the relevant report at least once a year [6]. In the last evaluation (2015), the highest score (A) was obtained for the results achieved regarding the auditing of the financial statements of SOEs.

The dividend policy within the Moldovan economic entities with state ownership is differentiated depending on the state's interest in maintaining or not an entity in public ownership. According to the legal framework, the public authorities that manage state-owned economic entities have to ensure the promotion, through the state representative, at the general meeting of shareholders of the joint stock company with the state quota in the social capital and adoption through the board of the state enterprise, of the decision to distribute, for the payment of dividends, a share of the net profit obtained, in a proportion no less than 50 percent of its total value, and for the state-owned economic entities that can not be privatized, no less than 25 percent [7].

At the same time, the state has created the necessary conditions not to distort the economic and financial situation of the state-owned economic entities by giving the right to non-distribute dividends in the state budget if the entity is insolvent; the value of the net assets, according to the entity's latest balance sheet, is lower than its social capital or will become smaller following the payment of dividends in the state budget. The legal framework also provides the possibility to be exempt by the Government from paying dividends in the state budget, in order to use the net profit for investments by developing the production, capitalizing, by increasing the social capital, or covering the losses of previous years.

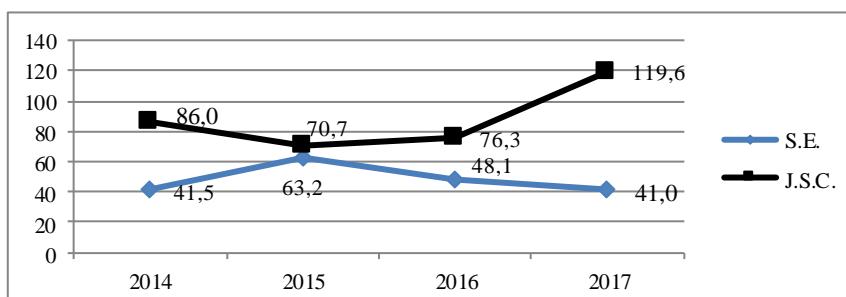


Figure 2. The volume of dividends from the net profit of state enterprises (S.E.) and joint stock companies with fully or majority state quota in the social capital (J.S.C.), payed in the state budget, mil. lei

Source: elaborated by the author based on data published in the source [12]

According to the recommendations formulated as a result of the audit mission, the Court of Accounts highlighted the need to increase the budget revenues from the state's participation in the social capital of the economic entities and it was proposed to the Government to examine the opportunity of modifying the regulatory framework by ceasing granting exemptions at the payment of dividends in the state budget, from the net profit obtained in the previous periods [8].

Financial instruments of management of economic entities with public ownership in European countries and possibilities of application in the Republic of Moldova.

Romania's experience. *The monitoring of the economic entities with public property* is carried out by the Ministry of Public Finance, as a public authority centralizing the financial statements, as well as by the line ministries and public authorities for economic entities with central subordination which are subject to reporting, and the line public authorities, related to the regions and counties, for public entities with local subordination. At the level of the Ministry of Public Finance, the main economic and financial indicators reported by economic entities with public ownership are monitored. The reporting is done through the S1001 application, with electronic signature, using the e-government portal services. In order to be able to transmit monthly /quarterly the reporting, public entities are required to take all necessary steps to ensure the timely possession and validity of the electronic signature. The monitoring activity started in 2008 with 10 public entities and about 30 economic and financial indicators. Monitoring is currently being carried out for:

1. 245 state-owned entities, out of which 227 are operating one and 18 inactive in insolvency;
2. 1127 entities with local property, out of which 1073 are operating one and 54 inactive in insolvency;
3. 46 state-owned entities and 52 local-owned entities in bankruptcy, liquidation, dissolution;
4. 2 guarantee funds receiving financing from the state budget.

Data reporting via the S1001 application is performed with the following frequency:

1. monthly, by state-owned entities (with central subordination);
2. quarterly, by local-owned entities (with local subordination);
3. monthly/ quarterly, by publicly-owned entities reclassified in the public administration sector;
5. quarterly, by the guarantee funds which are receiving finances from the state budget;
6. annually, by the entities with public property in bankruptcy, liquidation, dissolution.

In order to reduce the number of SOEs that do not transmit the S1001 reporting in the required terms and thus to improve compliance, at the end of each reporting period, a centralized situation with entities that do not comply with the legal reporting requirements is drawn up, which is submitted to the General Directorate for Economic and Financial Inspection within the Ministry of Public Finance, to sanctioning them in accordance with the legal provisions in force.

The SOEs centralized data is analyzed monthly and quarterly and it is used to:

1. make compilation of information and comparative analysis regarding the evolution of the economic and financial indicators compared to the previous periods, or the evolution of an entity over a certain period of time;
2. make them available to the ministry's management, or transmitting them whenever required by international financial institutions;
3. analyse the budgetary impact, when initiating some normative acts regarding the granting of state aids, improving the economic and financial situation of some economic operators and their recovery;
4. analyse the economic and financial indicators proposed in the income and expenditure statement for the current period;
5. make them available to the institutions involved in performing the development strategies, improve the performance of economic operators under their authority,
6. drawing up reports that are published quarterly/ annually on the ministry' web site.

Possibilities of implementation in the Republic of Moldova. Analysing the monitoring mechanism of the economic entities with public property in Romania, it can be examined the opportunity to elaborate a complex system of economic and financial indicators for which a monthly/ quarterly or semi-annual/ annual reporting basis can be established, depending on the risk category of the entity. At the same time, it is noted that the monitoring mechanism applied by the Ministry of Public Finance of Romania is fully automated, using the electronic signature and the services of the e-government portal, which can be further developed in the Republic of Moldova. Also, can be considered the possibility of applying sanctions in case of non-reporting the required data by entities, similar to the practice of Romania.

Elaboration of the revenue and expenditure statements of SOEs. In order to strengthen the economic and financial discipline and to improve the economic and financial performances of the public property entities, the Government Ordinance no.26/2013 on the strengthening the financial discipline at the level of some economic operators where the state or the administrative-territorial units are single or majority shareholders or hold directly or indirectly a majority holding (G.O. no. 26/2013) was approved. When developing G.O. no. 26/2013, into account was taken the Memorandum of Economic and Financial Policies assumed by the Government of Romania with the international financial institutions, through which were defined the state enterprises monitored by the Ministry of Public Finance. Through this Memorandum, state enterprises (also called economic operators) have been defined as autonomous companies, companies where the state quota in the social capital is over 50% inclusive. Thus, G.O. no. 26/2013 has regulated the way of approving the revenue and expenditure statements as follows:

1. for economic operators in which the state is the sole or majority shareholder, the budgets shall be approved by a Government decision or by an order issued by the credit principal orderers, the Ministry of Labor, Family, Social Protection and the Elderly and the Ministry of Public Finance;
2. for the economic operators in which the administrative-territorial units are single or majority shareholders, the budgets shall be approved by a decision of the local, county council, respectively of the General Council of Bucharest Municipality, as the case may be. In this respect, it was intended to comply both the policy of the Government and the policy of the territorial-administrative units, having regard to the legislation on local public autonomy.
3. for economic operators whose shares are admitted to trading on a regulated market and their subsidiaries, and where several administrative-territorial units have participations in the share capital of economic operators and have delegated to associations the attributions for the representation of their interests, the budgets shall be approved by a decision of the general meeting of the shareholders or, as the case may be, of the board of directors;
4. for the economic operators for which the insolvency procedure has been opened, according to the law, including their subsidiaries, the budget is not approved according to the provisions of G.O. no. 26/2013.

To avoid the development of unrealistic revenue and expenditure statements (budgets) and the granting of salary increases without improving the economic and financial performance, through G.O. no. 26/2013 there have been established several rules leading to the improvement of economic and financial performances of the economic operators, such as:

1. profit increase/ loss reduction, increase in turnover and labor productivity. In this respect, the economic operators, to which each of the last 2 years the degree of achievement of the total revenues approved in the revenues and expenditures statements was less than 90%, can base total revenues for the current year at the level of the achievements of the previous year.

2. reducing overdue payments and overdue claims. One of the most important goal of G.O. no. 26/2013, in order to strengthen the economic and financial discipline, is the level of outstanding payments approved by the economic operators' revenues and expenses statement and the gross result level - indicators monitored periodically by the Ministry of Public Finance. Following the approval of the above-mentioned Memorandum, the line ministries have the obligation to submit to

the Ministry of Public Finance the detailed "Situation regarding the reduction of overdue payments" on the economic operators subordinated to them, in compliance with the provisions of the Memorandum, in the approved amount. Based on the proposals formulated by the line ministries, quarterly indicative targets for overdue payments are set.

Thus, annually the Government approves through the Memorandum a series of measures to be taken into consideration when drawing up the statements (budgets) of incomes and expenditures for the current year of the economic operators. In this respect, for the year 2016, in order to strengthen the financial discipline, the Memorandum established:

1. the reduction of the outstanding payments, so that at the end of 2016 they are reduced by at least 15% compared to the level at 31.12.2015, and exceeding the limit of outstanding cumulative payments set by the central public administration bodies can be done, justified, with the approval of the Government through the Memorandum;

2. the wage policy established by the annual state budget law envisages increasing wage costs for economic operators that have achieved performance in the previous year and which propose at least similar results in the current year, tracking the correlation of the growth of the average gross monthly earnings per employee with the increase in labor productivity;

3. procurement programs and investment programs shall be drawn up in such a way as to take into account the real possibilities for payment of the economic operator and the sources of their financing.

Economic operators may rectify the income and expenditure statement by 31 October of the current year, except for the cases provided for by law, when for duly justified reasons, changes in the level of the following approved economic and financial indicators are required:

1. exceeding the maximum limits of the salary expenditures and the number of staff, in compliance with the wage policy objectives established by the annual state budget law;
2. reduction of the gross profit/ increase of the loss and/ or of the dividends to the state or local budget;
3. reducing labor productivity;
4. increase of the level of total expenditures to 1,000 lei (RON) total revenue;
5. exceeding the level of overdue payments;
6. in other situations imposed by the legal provisions.

The rectification of these indicators is approved by a Government decision, by a decision of the local council, respectively of the General Council of the Municipality of Bucharest, by order issued by the main credit ordinators, the Ministry of Labor, Family, Social Protection and the Elderly and the Ministry of Public Finance, by a decision of the general meeting of the shareholders or, as the case may be, of the board of directors. In the case of modification of other economic-financial indicators than those mentioned above, the rectification of the income and expenditure statement will be approved by the management board of the economic operators.

Also, for submitting the revenue and expenditure statements for approval, the execution of the income and expenditure statements and the reporting of the economic and financial indicators, in some situations, contraventions are applied that are sanctioned with a fine from 2000 to 10000 lei (RON) namely:

1. non-compliance with the deadlines for submitting revenue and expenditure statement for approval;
2. the annual and quarterly exceedance of the level of outstanding payments provided in the revenue and expenditure statement and in the annexes presented in its approval;
3. not respecting the correlation between monthly average wages and the increased labor productivity etc.

Possibilities of implementation in the Republic of Moldova. In the Republic of Moldova's practice, the income and expense statement (budgets) of the economic entities with public ownership are approved by their governing bodies, respectively by the board of directors and the general meeting of the shareholders. In this process neither the tutelage authority (the ministry/

authority responsible for their administration) nor the Government or other public authority are involved. According to the national legal framework, the founder of the enterprise is not entitled to intervene in the enterprise activity after signing the contract with the administrator (director), except for the cases provided by the legislation and the contract. The practice of approving income and expense statements by the Government, or jointly with other public authorities, is to be further explored, including in terms of the decision-making independence of those entities.

Setting a target for reducing outstanding payments of SOEs can be a very useful tool in managing the debts of these entities, including arrears. Therefore, the possibility of approving by the Government a percentage (quota) for reducing the debts of the public property entities during a operating year (15% per year in the case of Romania) can be considered, with the provision of the necessary measures to be taken for this purpose by the public authorities responsible for managing them, monitoring the implementation of the pre-set target, and setting sanctions in case of non-execution, which ultimately will condition the reduction of fiscal risks for the national public budget. It is also possible to study in detail and apply Romania's practice regarding the regulation of wage policy in the economic entities with public ownership correlated with the labor productivity index, which is regulated in the case of Romania by the annual budget law.

The Kingdom of the Netherlands' experience (The Netherlands). The portfolio of state participation in Netherlands includes companies that are important for the country's economy, mainly operating in the financial fields, energy, infrastructure, transport and gambling, which provide high-quality services and have a good national and international reputation. For instance, according to the World Economic Forum in 2012, the Netherlands has the best port infrastructure in the world, it has the third best airport in the world and the most punctual railway in Europe [9]. In order to efficiently manage the SOEs, about once every five years, the State Participation Policy Memorandum (State Memorandum of Understanding) is approved, describing the government's vision of ownership, whether it is directed towards privatization either to manage public entities with public ownership. The 2007 Memorandum abandoned the "privatization" principle that was previously applicable, declaring itself an active owner, focusing on important management issues such as strategy, investment policy, remuneration policy etc. The 2013 State Participation Policy Memorandum was also focused on corporate governance of SOEs, with privatization decisions to be taken by case-by-case examination, and whether the state's share in the company adds value and ensures the protection of the public interest. Therefore, the 2013 Memorandum includes a description of the evolution of the SOEs portfolio from the date of approval of the previous Memorandum, a description of the state's reasoning of state intervention in the economy through economic entities, a categorization of the state's shareholding, state ownership in each company, and corporate governance issues of those entities (company strategy, appointment of management, remuneration, investment policy etc.).

The 2013 Memorandum sets out four criteria to be fulfilled when deciding to participate in the capital of an economic entity or in the case of the creation of a new entity with public ownership, namely:

1. national public interest – it must concern a public interest at the level of the central governments, which cannot be safeguarded through laws and regulations alone. Regional public interests must be safeguarded at the regional level.
2. well-defined policy objectives - the public interest must have been translated into a well-defined policy objective, preferably laid down in laws and regulations.
3. profitability (return) - like any other company, the economic entity with public ownership must be able to record profitability from its business. Otherwise, the organizational-legal form should be rethought in order to achieve the objective.
4. periodic assessment - a well-defined policy objective contributes to the clear definition of the tasks of the SOEs. As a result of periodic assessments, if the target is reached, the state's market share may be withdrawn or, on the contrary, prolonged for a longer period of time.

Possibilities of implementation in the Republic of Moldova. The national legal framework does not explicitly describe the rationale for maintaining state property in certain economic entities. Although there is a tendency to diminish the state's presence in the economic entrepreneurial relations as well as the creation of the new state-owned entities, there is no clear requirements/reasoning for which state intervention in the economy is required through the state/ municipal enterprises or joint stock companies. According to the World Bank Preliminary Diagnostics and Reform Assessment Report on SOEs, a clear document justifying state ownership would establish the objectives of SOEs ownership in Moldova [1]. The Organization for Economic Co-operation and Development (OECD) Guide on Corporate Governance of Publicly-Owned Entities outline the good, and relatively recent, international practices of a clear justification (rationale) for state ownership. This rationale might include delivery of public goods and services where the state may be more efficient or reliable; operation of natural monopolies where markets are not efficient; and support for broad economic and strategic objectives/ goals of the country, including the maintenance of strategic national interest companies or systemic important companies. Therefore, taking into account the recommendations of the World Bank, the practice of the Netherlands can also be used to develop a document/ memorandum of state ownership justification, which will also increase citizens' confidence in the policies promoted by the government in this respect.

CONCLUSIONS.

Currently, economic entities with public ownership are still perceived as an inefficient development tool due to the fact that governments do not provide them with strong development missions, because they are often linked to objectives that are not directly related to economic and social development. However, it can not be neglected the fact that the big part of the investment in infrastructure, telecommunications, heavy industry has been achieved through public entities. Thus, although their role in economic and social development is often challenged as they are not as efficient as those in the private environment, it can not be denied that the current state of development reached in each state is due to public sector involvement in the economy [2]. Given the importance and continued influence of publicly owned entities, and whatever the arguments about the merits of government control would be, it is considered necessary to give more attention to the effective management of those entities. It is important to highlight that in the event of SOEs default of their payment obligations, these become conditional obligations for the state (contingent liabilities), thus favoring the "hidden deficit" of the budget, respectively expenditures that the state is due to covering them, which is a part of the risks system related to the state budget.

In order to ensure the development of the SOEs activity, the necessary measures to strengthen their administration/ management are to be undertaken, by elaborating policies for selecting the governing body (director) of the entity on meritocracy principles, strengthening the mechanisms of control/administration of the entities, including audit of the annual financial statements of all state-owned entities, ensuring the transparency of the carried out activity etc. Similar opinions have been expressed by external partners such as the World Bank, the International Monetary Fund. It is also necessary to limit the direct or indirect financial support of the economic entities with public capital from the state, and for the improvement of the performance of state and municipal enterprises, for the efficient use of public resources, the central and local public authorities, founding the respective enterprises, need to adopt transparent rules for decision-making in these public sector enterprises, thus ensuring more effective control of their management. The management standards, even for state-owned enterprises, must be based on private investor principles (profitability, commercial and financial results, cost-benefit ratio, time value of money, investment recovery deadlines, tariff level) [10].

REFERENCES:

1. Support to State Owned Enterprises (SOE). Preliminary diagnostics and reform assessment, World Bank, 2017, <http://siteresources.worldbank.org/EXTCENTFINREPREF/Resources/MoldovaSOEDiagnosticsRO.pdf>;
2. ZAHAROAIE, M., Rolul întreprinderilor publice în dezvoltarea economică a statelor din Centrul și Estul Europei, Iași, Universitatea „Alexandru Ioan Cuza”;

3. Hotărârea Curții de Conturi nr. 3 din 25.02.2016 cu privire la Raportul auditului privind realizarea de către Ministerul Finanțelor a sarcinilor și activităților în procesul de monitoring financiar al întreprinderilor de stat și societăților comerciale cu capital integral sau majoritar de stat. În: Monitorul Oficial, 2016, nr. 69-77, art. 9;
4. Hotărârea Guvernului nr. 568 din 06.05.2008 cu privire la organizarea evidenței proprietății publice, circulația acesteia și exercitarea funcțiilor de către persoanele împoternicate să reprezinte interesele statului/unităților administrativ-teritoriale. În: Monitorul Oficial, 2008, nr. 86-87, art. 556;
5. Analyzing and Managing Fiscal Risks-Best Practices, IMF Policy Paper 2016, <https://www.imf.org/external/np/pp/eng/2016/050416.pdf>;
6. Public Expenditure and Financial Accountability (PEFA) Assessment Update for Moldova (2012-2014), 2015, http://eeas.europa.eu/archives/delegations/moldova/documents/more_info/pefa_assessment_2012-2014.pdf;
7. Hotărârea Guvernului nr. 110 din 23.02.2011 cu privire la unele aspecte ce țin de repartizarea profitului net anual al societăților pe acțiuni cu cotă de participare a statului și al întreprinderilor de stat. În: Monitorul Oficial, 2011, nr. 34-36, art. 137;
8. Hotărîrea Curții de Conturi nr. 16 din 30.05.2016 cu privire la misiunile de audit asupra Raportului Guvernului privind executarea bugetului de stat pe anul 2015 și asupra datoriei sectorului public, garanțiilor de stat și recreditării de stat pe anul 2015. În: Monitorul Oficial, 2016, nr. 206-214, art. 19;
9. 2013 State Participations Policy Memorandum, The Netherlands;
10. Legea nr. 246 din 23.11.2017 cu privire la întreprinderea de stat și întreprinderea municipală. În Monitorul Oficial, 2017, nr. 441-450, art. 750;
11. Legea nr. 169 din 20.07.2017 pentru aprobarea Programului național în domeniul concurenței și ajutorului de stat pentru anii 2017-2020. În: Monitorul Oficial, 2017, nr. 301-315, art. 533;
12. www.date.gov.md
13. www.mf.gov.md

OPERATIONAL RISK ADMINISTRATION – ESSENTIAL COMPONENT OF PUBLIC DEBT MANAGEMENT EFFICIENCY

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Abstract. In public debt management department, the components of risk such as market risk, credit risk, refinancing risk and liquidity risk are relatively well known; the operational risk is however, less known and an area that has not been given much attention by government debt managers in developing a risk management framework. This paper highlights the operational risk approaches as applied to public debt department and attempts to present a framework for debt managers to manage operational risks while undertaking public debt management operations. Developing an operational risk management framework can be an evolutionary process as it will take time and effort not only to identify and understand the risks but also the mitigation techniques in an environment that is constantly changing. There is no need to try to do everything perfectly from the outset. This article shows that the operational risk management framework can be developed and applied incrementally as techniques improve and staff begins to understand the risks and the mitigation technique of public debt management.

Key words: operational risk management, public debt management, risk champion, debt managers

JEL CLASSIFICATION: H63; F65; G38; G32.

INTRODUCTION

Public debt managers are exposed to a wide range of possible risks that could be divided into two important components: financial risks and operational risks. Financial risks, such as interest rate risk and currency risk, are central to developing and maintaining a debt management strategy grounded in cost-risk analysis. As such, public debt managers spend a considerable amount of effort identifying, evaluating and mitigating those risks. The awareness of operational risks is often less developed. Operational risks are typically broader in scope and are not only concerned with government debt offices. However, their impact can be significant for public debt managers given the volume of financial transactions and payments performed on a daily basis.

The operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events (Basel II, June 2004). [5] In debt management operations, the categories of risks, such as market risk, the exchange rate and interest rate risk, credit risk, refinancing risk and liquidity risk, are relatively well known, but the operational risk is not. The area has not been given due attention to by government debt managers in developing a risk management framework. Government debt management departments are responsible for managing the costs and risk of the government's debt portfolio, which is often the largest financial portfolio in the country. As such, it is very important that public debt management departments develop policies and procedures to manage the risks that they face, namely, market risk, credit risk, refinancing risk, liquidity risk, and operational risk. This partly reflects the high value of the financial transactions involved and the consequences of substantial financial loss including on debt service costs. But there is potentially also severe reputational and political damage associated with operational error or failure.

MATERIALS AND METHODS

Under Basel II (International Convergence of Capital Measurement and Capital Standards: A Revised Framework, June 2004), the operational risk is defined as "the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events." [5] The definition explicitly includes legal risk, but excludes strategic and reputation risk. What is necessary is a framework in order to ensure an efficient management of public debt and to elaborate an appropriate toolkit for managing it. Awareness and attention of operational risk is low in many countries, or is perceived as something applicable only to the private sector. Moreover, it attracts little attention from the senior management because it is not seen as important or a priority. The

problem of course is that operational risk is a wide umbrella, often seen as covering everything except for market, credit, refinancing, and liquidity risks. Unlike market or credit risk, operational risk is mainly endogenous to public debt management department.

More importantly, operational risks are more difficult to manage as the embedded risk cannot be captured and measured in the same way as market and credit risk. In addition, market or credit risks can be effectively managed by a relatively small number of debt managers in the public debt management, normally in the front and middle office, whereas operational risks must be addressed at all levels across all of government debt management operations. The Basel II definition as mentioned above includes the legal risk but excludes the strategic and reputation risk. The strategic and reputation risk, however, can be caused by both bad operational risk management and an unexpected consequence of an informed decision. An inappropriate strategic decision due to the lack of adequate training of staff and lack of system support is an operational risk, while an informed strategic decision based on a reasonable cost/risk analysis that still resulted in a loss for the government is an ordinary business risk. Both can of course affect the reputation of the government. It is useful to consider the principles for operational risk management within the context of the legal and managerial structure that shapes and directs the operations of the public debt department. It includes the legislation that defines goals, authorities, and accountabilities. It also embodies the management framework, covering issues such as the formulation and implementation of a debt management strategy, operational procedures, quality assurance practices, and reporting responsibilities. The governance structure for operational risk management may be quite extensive with an operational risk committee, audit committee, a management committee, and an advisory or decision-making board.

Developing an operational risk management framework can be an evolutionary process as it will take time and effort to not only identify and understand the risks but also the mitigation techniques in an environment that is constantly changing. There is no need to try to do everything perfectly from the outset. The framework can be developed and applied incrementally as techniques improve and staff begin to understand the risks and mitigation techniques. For the framework to succeed, it is extremely important to develop a culture of risk awareness across the public debt management and ensure that all staff are involved in developing and implementing the framework.[1]

The first stage involves senior management understanding and signaling to all staff in the public debt management the importance attached to operational risk management and the need for their participation and ongoing cooperation. The principles as outlined above that will be followed in the management of operational risk need to be made clear to all staff and embedded into day-to-day public debt operations. Each line manager needs to be made responsible for operational risk management in their own business area. It is advisable that a risk champion from the middle office be appointed to take overall responsibility for operational risk management. The risk champion will lead and guide the process across the public debt management, coordinate reporting to senior management, and develop the appropriate operational risk management policies and procedures and control environment. Ideally the risk champion would have relevant background or experience, although this will often not be possible. There are, however, opportunities for professional training in operational risk management and business continuity planning which could be considered. Once the structure has been established, the development and maintenance of an operational risk management framework for a public debt management should follow a process, as understanding document activities, identifying, assessing and measuring risks, developing risk management strategies, implementing capabilities, monitoring and very important to continue the improvement of it. The risk champion should then report to senior management on the greatest exposures, the risk management techniques to mitigate, control, or limit the risks, the actions that are recommended to address the greatest exposures, and an estimate of costs. The senior management can then assess the cost-risk trade-off before making decisions or seeking approval from higher level. The risk assessment and operational risk management strategy approved can be documented in the public debt department operational risk

management plan. A business continuity or disaster recovery plan can be incorporated in the plan or maintained as a separate document. The risk champion can oversee the implementation of measures approved by senior management and incorporate into the wider risk management monitoring and control policies and procedures for the public debt management. [3] This process may comprise: training program for managers and staff to understand their roles and responsibilities in compliance with the operational risk management policies and procedures, and possibly introducing risk-reduction objectives for each member of the public debt management, raising awareness with external parties to cover all activities external to the public debt management of the operational risk management framework and seek their cooperation in monitoring and reporting and, where possible, requiring these service providers to meet the same operational risk management standards as the public debt management introducing operational risk management into service level agreements or a memorandum of understanding with third party providers and contracts with external suppliers, developing control tools that are documented in procedures, technical and other manuals and monitored by the public debt management, risk monitoring, developing, maintaining and annual testing of the business continuity and disaster recovery plan. [2]

The monitoring process assesses the presence and functioning of the operational risk management policies and procedures over time through a combination of ongoing monitoring activities and specific evaluations. Ongoing monitoring occurs in the normal course of public debt management operations; it is the responsibility in the first instance of line managers, with coordinating responsibility assigned to the middle office/risk monitoring and compliance unit/risk champion. The scope and frequency of specific evaluations depends on an assessment of risk and the effectiveness of ongoing monitoring procedures. The specific evaluations could be undertaken by external audit. It is necessary to report regularly to senior management on the risk profile, identifying areas that are improving or deteriorating, and priorities for mitigating action. An important element of monitoring performance is reporting of incidents or exceptions to senior management, normally as part of a risk monitoring and compliance report. For serious incidents or events, it may be necessary to identify badly managed risks and the action needed to avoid repeating such incidents. Many incidents may often be the fault of management failing to develop an adequate control environment rather than the individuals that may be deemed directly responsible, indeed for this to work effectively a no blame culture is important. One course of action is to identify which line manager has the lead responsibility for managing and controlling each of the identified risks, and then ask each line manager to report periodically on the risks for which they are responsible, whether these have increased or reduced, and whether and what action should be taken. In this way, the line managers are involved in the process which ensures buy-in of the business areas across all public debt operations.

The middle office risk monitoring and risk champion will be responsible for collecting the reports together with the preparation of exception/error reports, and summarising the key points and main risk drivers. Changes in the risk profile since the last monitoring assessment should be noted. The report would go on to make recommendations for consideration by senior management.

RESULTS AND DISCUSSIONS

Risk management is central to the debt manager's task. Risk depends on exposure to future events, however driven, with exposure depending both on the probability of the event happening and its impact if it does. Risk management is about identifying and assessing these risk factors, and deciding whether and how to respond to them and mitigate their impact. Among the risks managed by debt managers, market risk has perhaps received the most attention, the risks associated with changes in market prices, such as interest rates and exchange rates, on the cost of the government's debt servicing. Also important is rollover risk, which depends on how interest rate volatility interacts with the redemption profile, and liquidity risk, the ability to access cash in a short period of time. Both can be seen as a category of market risk. Credit risk, the impact of a failure of a counterparty, may be important in some cases. The debt manager's task is to assess the magnitude of these risks, or the sensitivity of outcomes to changes in the risk factors, and develop a strategy

for managing the trade-off between expected cost and risk. Operational risk is perhaps the least understood of the debt management risk categories. But it is no less important. The public debt department will be directly responsible for stewardship of very substantial government liabilities and for managing a large value of transactions, probably much more than any other governmental body. The large sums involved mean that any risk exposure can have damaging financial consequences including on debt service costs. But there is potentially also severe reputation and political damage associated with operational error or failure, reflecting on the competence of the debt managers or of ministers.

Operational Risk is considered problematical, or is least understood of the risk categories, or is endogenous to the institution –it cannot be captured and measured as easily as credit and market risk. The management processes are complicated, is linked to the nature and the complexity of the activities, to the processes and the systems in place, and to the quality of the management and of the information flows, it has many sources, a lack of discipline, unstable or poorly designed procedures, inertia, change, greed, lack of memory or knowledge, overconfidence, all factors which cannot be easily quantified, monitored, and reported upon. But Management of operational risk is very important and should preview the failure of transaction - processing systems is a major risk exposure, heavy reliance on IT – reduces human error, but exposes new risks, pressures to reduce costs, increasingly sophisticated financial products, new technologies accelerate market activity and increase interconnectivity, bringing new security concerns, increasing regulatory requirements that have highly explicit compliance expectations, all of which put pressure also on public sector.

Indicators of best operational risk management (ORM) are: operational risk management practices should be repeatable, it should be linked into day-to-day business, and hence to continuous improvement mechanisms built into the operational risk management cycle. Policies and procedures should be fully embedded in working practices, with active top management support. Data history should be built up gradually to enable effective trend analysis. ORM falls short of best or good practice where it is no more than an ‘add-on’ in terms of practices, policies and procedures, it is a product of the operational risk management function only, and then rolled out for a selected number of departments or processes.

The ORM function coordinates the operational risk management process on a day-to-day basis and establishes the framework for reporting and evaluating results, facilitates and monitors the risk-response process, escalating problems as necessary. The function typically evolves over time, from being the main driver to being a facilitator or consultant. This shift requires both: the active support of senior management and strong operational risk function, to enforce a formalized and standardized approach for the implementation of ORM practices across the organization.

As recommendations it can be proposed:

- Control activities must be planned at all levels throughout the organization and the responsibilities for their execution and follow-up clearly defined;
- The responsibility for developing and implementing risk-response action plans it is for management representatives;
- Monitoring is undertaken in parallel and is semi-independent of the ORM function in so far as is evaluating the effectiveness of the ORM process itself.

ORM is a key component of the overall governance structure, is a formal, structured response to managing the internal environment and the external factors influencing it. Explicit attention to the risk culture, closely linked with human resources development and evaluation practices and explicit responsibility allocation for ORM objectives to employees across the organization should be an integral part of communication & monitoring activity. Also, the degree of top management attention is an initial indicator of an organisation’s ORM maturity level and to establish an effective support structure for mature operational risk management practices. This includes providing leadership in interpreting and translating often intangible governance considerations into a practical policy ORM in a Debt Office. Senior management must signal to whole office the importance attached to operational risk management and to appoint a “Risk Champion” someone in middle

office who will take OR responsibility. The risk champion leads and guides the process throughout the office; and coordinates reporting to management, develops the control framework; acts as “consultant” to line managers; and monitors and chases progress. Suggested process for risk champion is to identify risks and assess key exposures, prepare a high-level summary of risks that is consistent across the office, as a way of identifying priorities for management, monitor risk events, regularly review and update of the risk profile, collect risk data in a series of workshops across the office. Important that everyone is involved, including the more junior staff - helps to develop risk understanding and a risk culture and coordinate with internal audit; inform external audit. Risk champion should rate each risk for both likelihood (low, medium, high) and impact (low, medium, high) and plot the combinations on a matrix. Most serious risk exposures are those of high likelihood and large impact. Ideally scoring done separately before and after the mitigating controls, and decide whether the residual risk can be further reduced or is unavoidable. Risk champion reports to management on greatest exposures, together with the control actions that have been taken or might be taken in future and refresh data periodically with repeat workshops. [4]

Also, reporting is very important. Risk champion should report each incident or exception – summary in reports to senior management, report regularly to senior management on the risk profile, identifying where improving or deteriorating; and priorities for mitigating action, indentify which manager has the lead responsibility for managing and controlling each of the identified risks. The responsible one should ask each manager to report periodically on the risks for which they managing - whether these have increased or reduced, and whether and what action should be taken. Risk champion collects the reports together with the error reports, and summarises the key points for senior management, with recommendations. Risk management should be a holistic and comprehensive process within a Public debt management department (PDMD). A larger PDMD would have its own senior management risk committee or enterprise risk management framework to define its risk policies, covering market and credit as well as operational risk, to monitor exposures and identify the trade-off between risk and operational goals. Within this context, the exposures associated with operational risks and the importance of developing policies and procedures for managing those risks have been drawn to debt managers' attention. However, their implementation in practice has, for various reasons, been deficient. Operational risk management is difficult and may be seen as unfashionable and of relatively low status in the high pressure and politicised environment faced by many debt managers. Responding to this gap, the World Bank has recently published a guidance note on operational risk management in government debt management.[2]

Good practice calls for the development of operational risk management policies and procedures that give senior managers a clear oversight of key operational risks, and for necessary actions to manage these risks in a way that is consistent with wider debt management objectives. A very good example is General Directorate of Public Finance (GDPF) when has developed an operational risk management framework that is in line with good practice as widely adopted across the financial services industry internationally, while also taking into account the somewhat different objectives of a public sector body. One of the challenges is what data to collect and how to collect them. A key objective of ORM is to provide actionable information to allow decision-makers to assess the true extent of risks in order to determine the way forward. Incident reporting is crucial. If that can be linked with actual loss data, so much the better; but as argued above, not if such financial calculations are simply a distraction. Moreover, many significant incidents do not result in serious direct losses. Incidents should be analysed to risk drivers and to risk exposures. It will be helpful to design a standard template for incident reporting, and build an internal database that lists all incidents attributable to operational problems. It is good practice to score incidents (critical, significant, minor etc); and monitor over time the process of assessment, agreed action and its implementation by management. There are often two problems in practice:

- a) In more analytical areas the concept of an error or incident may be less clear cut. For example, in Turkey there was also initially some uncertainty about who should report errors

when more than one unit was involved in the process. Ideally it is the originating team not the impacted team that should report the incident.

- b) The way of the PDMD may make staff reluctant to report incidents if they fear that it will affect their prospects or performance assessment. It is very important that there is a “no-blame” culture; and management should be seen both to insist on a report and to avoid anything in the way of reprisal. Constant reminders will probably be necessary at first.

In Turkey incidence reporting has improved as staff have gained reassurance from the attitude of management. Persistent error of course is to be discouraged; but more often than not it will be management’s fault – because of insufficient training, poorly targeted checking or inadequate system design. The risk team can use its own information and informal sources as a ways of encouraging and monitoring the completion of reports. Risk awareness takes time to develop, and once established it must be reinforced. Basic training should be given to new personnel, with all staff being given periodic refreshers. Incident reports are only one part of the reporting processes; they say nothing about exposures that have not materialised in the period. Incident reports should be backed both by managers’ own assessment of the risk profile in their area – and whether it was deteriorating or improving. Also helpful are key risk indicators as potential indicators of risk exposures. For a more understanding of standard risk management process these are the usual stages:

- Risk Identification: As mentioned earlier, understanding the risks specific to public debt management area is key, but there are also many potential risks that affect and need to identify all of them, both those that are recurring and those that can be one-off events. The identification process needs to involve staff from all levels if possible, bringing a variety of backgrounds and experiences to make a cohesive result

- Risk Assessment: Once the risks have been identified, they need to be assessed. This needs to be done from both a quantitative and qualitative perspective and factors like the frequency and severity of occurrence need to be taken into consideration. The assessment needs to prioritize the management of these risks in relation to those factors.

- Measurement and Mitigation: Mitigating these risks is the next stage, with controls put in place that should limit the PDMD exposure to the risks and the potential damage caused by them.

- Monitoring and Reporting: Any Operational Risk Management plan must have something in place for the ongoing monitoring and reporting of these risks if only to demonstrate how effective the plan has been. Most of all, it’s to ensure that the solutions put in place are continuing to be effective and doing their job in managing the risks.

CONCLUSIONS.

The importance of operational risk management in public debt management department is not in doubt. The benefits are difficult to measure, as they can be defined strictly only in terms of what did not happen. But they are very important, useful and clear enough:

- a better understanding of risk and more informed and improved decision making, with greater focus by senior management on what is important;

- more effective and efficient risk management processes and controls, and speedier corrective mechanisms, all underpinning the protection of the government balance sheet and transactions;

- an enhanced external reputation, which potentially brings benefits in the PDMD or treasury’s interaction with, for example, the central bank and market intermediaries;

- a stronger and more risk-aware culture internally, with wider business planning benefits in terms of focus on objectives and collaborative work within the PDMD.

In the Turkish Treasury, there were some early benefits as some high risk exposures were brought into focus and new control mechanisms were developed accordingly, particularly in the IT and disaster recovery areas. [3] Staff gave their full support once they realised that the new framework made their work easier and reduced the number of mistakes and errors. They also found it useful to use the ORM framework and tools to convey their needs to the senior management. The experience in Turkey and in other PDMDs shows that such benefits can be achieved with a

proportionately modest resource cost. The procedures outlined are not only consistent with good international practice, taking into account the distinct public sector characteristics of a PDMD, they are also flexible, and can be applied proportionately to size, activities, risk appetites and capability. In Turkey, the cost includes the staff of the operational risk management department (ORMD) and the time taken by the working groups, to which some management time must be added. All staff will be involved in periodical updating of the data, incident reporting etc.; but much of the continuous reporting and summarising work will be the ORMD's responsibility. For a smaller PDMD, it might identify an existing member of the middle office as risk champion, and establish a working group, engaging all staff directly to draw up the initial matrices through two or three workshops. Whatever the scale and resources, the support of senior management will be critical, and, at the end of the day, ORM helps them to meet their and the entity's objectives.

ORM is a key component of the overall governance structure, the structured internal processes of specifying objectives, making decisions and monitoring performance within the wider environment, including the strategic objectives and accountability processes applying to the PDMD itself. The degree of top management attention is arguably an initial indicator of an organisation's ORM maturity level. Full integration and recognition of ORM requires senior management:

- a) to offer attention to the risk culture, closely linked with human resources development and evaluation practices;
- b) to present leadership in interpreting and translating often intangible governance considerations into a practical policy;
- c) to give responsibility for ORM objectives to employees across the department;
- d) to ensure that ORM is an integral part of communication and monitoring activity;
- e) to embed fully policies and procedures in working practices.

Some thought also needs to be given as to how the ORM function relates to related functions, such as internal audit and a separate compliance function if there is one. The internal audit function should be independent of the ORM function, not least because part of its role is to evaluate ORM processes, and should report to the head of the PDMD. It should be governed by an audit charter that gives the unit sufficient authority and freedom. Many PDMDs will be too small to have a dedicated internal audit function and they will in practice share that of the wider ministry of finance. Compliance is the process for ensuring that procedures and controls are consistent with rules and regulations and also that they are properly operated. It should be an opportunity to review regularly the risk profile and reassess priorities in the light of changes in the environment and risk events. These management needs must mesh with the procedures that operate at working level, the preparation of risk registers, the development and operation of controls and the preparation of procedures that embody them. The approach set out here is designed to be consistent with good practice but to take account of the constrained resources of many PDMDs and their integration in wider ministerial or governmental organisations. The first step is to identify an individual in the middle office to lead the process – often referred to as the “risk champion”. More developed PDMDs will have an ORM professional; others will need to identify an official who will be tasked to organise, develop and drive forward the framework, advise line managers as required, maintain risk data and report to senior management on the risk profile. In the smallest PDMSs, this official may have other middle office responsibilities.

REFERENCES

1. Guidance for Operational Risk Management in Government Debt Management, Tomas Magnusson, Abha Prasad and Ian Storkey, 18 p
2. Revised Guidelines for Public Debt Management prepared by the Staffs of the International Monetary Fund and the World Bank March 2014 Approved by José Viñals and Jeffrey D. Lewis, 43 p
3. Government debt management and operational risk: a risk management framework and its application in Turkey, Hakan Tokaç and Mike Williams, 43 p
4. Government Debt and Risk Management Program for Middle-Income Countries, Matthias Feldmann, Economist, Economic Cooperation and Development, 2 p
5. International Convergence of Capital Measurement and Capital Standards: A Revised Framework, June 2004

CHALLENGES RELATED TO ATTRACTING FOREIGN DIRECT INVESTMENT IN THE REPUBLIC OF MOLDOVA

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Abstract. The stimulating role of foreign direct investment in a country's economy is undeniable and widely recognized in the economic theory and practice. Investment inflows have a huge benefic influence on economy development. That is why, most of the countries continuously try to improve their investment climate in order to attract as many investors they can. However, despite the fact that all the countries try to attract foreign investors, the results are quite different. Therefore, in this article are related the negative factors and challenges that impede the attraction of foreign investment in the Republic of Moldova.

Key words: foreign investment, framework, investors, industrial platform, infrastructure, professional education.

JEL CLASSIFICATION: E22, E61.

INTRODUCTION

The stimulating role of foreign direct investment (FDI) in a country's economy is undeniable and widely recognized in the economic theory and practice. The chain of positive effects that FDI generates are affecting both the productive potential of host countries and the labor market and the social situation of the population, thus contributing to the creation of new jobs, increasing the incomes of the population and, implicitly, stimulating economic growth.

For the past decade, the public authorities from the Republic of Moldova have become aware of the investment's role in an economy and more and more public policies related to economic growth are dedicated to improve the investment climate, business conditions and attract foreign investors in the Republic of Moldova.

However, according to different international assessments made by international organizations, such as World Bank, International Monetary Fund etc., the Republic of Moldova is one of the countries in the world with the poorest investment climate and the lowest level of attracting foreign investors. Even if some of business activity conditions in Moldova have changed over years and in comparison to the first years of independence, The Republic of Moldova has attracted more investors, the foreign investment level remains very low. Therefore, further is presented an analysis of what are the factors because of what foreign investors are not willing to allocate their resources in Moldova and what are the challenges faced by the national authorities in attracting investment.

The analysis of bibliography resources related to the subject

The research theme was approached and studied in the works of several foreign researchers, among which are highlighted: M. Porter, J. Dunning, J. Keynes, S. Lall, M. Luthria, C.-A. Michalet, J. Morisset, K. Andrews-Johnson, Torfinn Harding, L. T. Wells Jr. și A. G. Wint, H. Gorg și D. Greenaway, T. Farole, M. Matei, A. Mazilu, F. Bonciu, M. Negrițoiu, V. Iacovoiu, I. Anghel, F. Buhociu și G. Negoescu, R. Zaharia, A. Albu, S. Dumitrescu, G. Zaman, I. Denuță, I. Bari, M. Caracota și D. Caracota, M. Cartas, V. Câmpeanu, etc.

Also, the investment topic was approached by our national researchers as well: D. Moldovanu, B. Chistruga, G. Belostecinic, R. Hîncu, N. Băncilă, L. Bugaian, I. Galaju, T. Pâskina, L. Tverdun, C. Doltu, L. Cinic, D. Clichici, E. Benea-Popușoi, M. Bunu, G. Ulian, M. Cebotari, A. Suhovici. At the same time, the analysis of this topic was made taking into account the legal framework of the Republic of Moldova.

Description of the research methods

The research methods that were applied are as follows:

- the economic analysis method implies the decomposition, the breakdown of the investigated process into elements and the research of each element as part of a whole.
- the synthesis method presumes the unification of the fragmentary elements, the partial knowledge obtained in the analysis in a whole.
- the comparison method implies studying the processes and economic phenomena through a reference criterion, establishing similarities and differences.

The obtained results

Although one of the main objectives of the national authorities is to attract FDI and to improve the investment climate, the Republic of Moldova is among the countries with the lowest level of investment attraction. This is explained by the existence of less favorable factors and challenges.

One of these challenges is the *lack of qualified specialists and inadequate training*. For example, the number of graduates in the Republic of Moldova would be sufficient to cover the current needs of the economy, but the percentage of sufficiently skilled people is very small. This is explained by the fact that some of the professional education programs do not meet the requirements of the market. In some economy sectors, such as the telecommunication sector, most companies believe that the rate of fresh graduates prepared for employment in faculties and colleges preparing specialists is too low, and the period of training of these graduates is too long (longer than the European average). Therefore, the investors in this field maintain their operations in the Republic of Moldova on a small scale, despite the tax incentives offered, or relocate the investment to another country or region, which, even if it involves higher costs, offers at the same time, a larger number of competent graduates. In the short and medium term, the Government relies on labor training as part of the business process. In the long run, through the reform of professional education, the Government will ensure the training of well-skilled professionals so that the transition from school to work is as cheap as possible. This can be done in cooperation with faculties and companies to reduce the average training period of 6 months for specialists [3].

At the same time, the *hiring procedures for foreign workers remain burdensome*. Despite the progress made in the recent years, the necessary formalities for hiring foreign workers take a long time and are rather costly. In order to be employed under employment contracts in the Republic of Moldova, foreign workers need to obtain a long-stay visa (12 months), as well as a residence and work permit. It is also necessary to obtain the notice of the National Agency for Employment (procedure can take up to 30 days or more) and Office of Migration (lasts 60 days or more). These institutions have too much discretion when requesting different confirmatory documents, which further increases the duration and cost of hiring foreign workers. In the shortage of labor and emigration unfavorable demographic perspectives, these regulatory rigidities exert further pressure on companies who want to invest and / or expand their business in Moldova [4].

Another factor that disadvantages the attraction of investment in the Republic of Moldova is the *acute failure of the developed industrial platforms in the appropriate way*. Countries characterized by an uncertain economic and political environment can count more on attracting movable foreign direct investment that involves lower installation costs in the event of a relocation opportunity in a country other than stable foreign direct investment that would be based on the delivery of local contributions and the indisputable benefits of the labor force. Unfortunately, the Republic of Moldova still remains in a situation where a large number of foreign entities prefer not to invest in construction, but only in machinery, in order to preserve the possibility of rapid mobilization and relocation [5]. To attract mobile FDI, the country has to offer ready-to-use industrial halls. In Moldova, the rent prices of industrial premises are not lower compared to other countries in the region (see table 1).

Table 1. Rental prices of industrial halls

| Country | Rental price, EURO/m ² |
|----------|-----------------------------------|
| Moldova | 3-4 |
| Romania | 3,5-4,0 |
| Serbia | 4-5 |
| Bulgaria | 2,5-3,8 |

Source: www.colliers.com/en-gb/emea/insights/interactive-rents-map

The territorial location of land and industrial platforms does not meet the requirements of investors, especially due to labor shortages, adequate qualification in the area, but also often because of the poor quality of access routes. The slow, even difficult, process of obtaining construction authorization from local authorities and connecting utilities increases the duration and costs of building new industrial halls. These challenges become more and more intense, given that more and more investors prefer to settle in already existing industrial premises [3].

The problem of the lack of industrial platforms is amplified by the difficult procedures and high construction costs. In addition to the large number of procedures and the length of time needed to obtain a construction permit, a potential investor must also bear the financing costs that, due to Moldova's country risks, are higher than in many other countries in the region. Due to an unpredictable investment climate, investors are generally reluctant to assume additional fixed costs associated with the construction of production halls. Thus, state intervention is absolutely necessary to eliminate this market failure and support the development of design-construction-leasing services [5].

Another factor that undermines the attraction of investment is the *low level of use of digital technologies*. According to the Competitiveness Report, Moldova ranks 51 out of 144 countries in the technology development area, surpassing countries such as Serbia, Azerbaijan or Macedonia. One of the most important advantages offered by the Republic of Moldova is the good quality of internet connections. However, there is still a low level of ICT use [3, 4].

Another challenge in attracting investment is the *wear of physical infrastructure*, which requires substantial upgrading. In 2015, the Republic of Moldova ranked 118th out of 144 countries according to the quality of the transport infrastructure, with the lowest score given to the road infrastructure and the best - the air transport infrastructure. This problem is amplified by the poor development of services and logistics infrastructure. According to the World Bank's logistics performance index, Moldova ranks 94 out of 160 countries, with the most problematic aspects being inefficient geographic location services, poor logistics quality, and the competence, fragmentation and bureaucratic nature of the procedures by the border control authorities. Fortunately, in order to solve the given problem, a series of legislative and institutional measures have been adopted to improve the performance of the Customs Service. Their impact will, with high probability, contribute to the substantial consolidation of the position of the Republic of Moldova in the next edition of the logistic performance index.

Poor quality of roads is the major problem of physical infrastructure. About 47% of national roads and 80% of local roads require rehabilitation. Considering the fact that about 64% of the total volume of goods carried is the road transport, it is obvious the negative impact on the costs of domestic and foreign trade and on the competitiveness of the Moldovan entities. The quality of transport infrastructure on the key delivery directions of exports is an important factor in the decision-making process of potential investors. With Moldova attracting a larger volume of export-oriented FDI, pressures on the road system will increase as a result of more heavy truck traffic, which will significantly contribute to further deterioration of the roads. The quality of the road system also influences labor mobility, so improving transport infrastructure will help mitigate the shortage of competent workforce.

The quality of the port infrastructure is another problem that needs to be addressed. The Republic of Moldova has a single river port - the International Free Port "Giurgiulesti", which, through the Danube, links to the Black Sea. It has extensive and upgraded infrastructure including

product and grain terminals, a general cargo and container terminal, a free area, logistics, leasing and consulting services, 14 kilometers of rail to Romania. However, it does not have a good link with the capital and the rest of the country due to poor road and rail connections and is relatively poorly integrated into the national economic system. That is why, in 2014, river transport accounted for only 2% of the total volume of goods transported. Compared to road, port and rail infrastructures, air transport infrastructure is in a better state. The Republic of Moldova has become part of the European Common Aviation Area, which has to some extent increased competition between airlines, has generated price cuts and has intensified international passenger traffic. However, air transport remains costly and inconvenient for freight transport, which is practiced only at Chisinau airport [1].

Another problem in attracting investments is the *inadequacy of the legal and institutional framework* of the Republic of Moldova. Legislation itself, as well as how it is implemented, contains major loopholes, caused by inadequate governance of the economy, vulnerability of institutions, poorly developed business culture, political and macroeconomic instability, and the unpredictability of the business environment. The Business Regulatory Framework does not provide for effective and clear safeguards for investors: there is no practice of investment agreements providing clarity about the rights and obligations of both parties, mechanisms for resolving tax issues (such as the anticipated fiscal solution) and mechanisms of complaints from investors. Foreign investors in the Republic of Moldova are more sensitive to the investment climate deficiencies due to efficiency-oriented FDI mobility and intense international competition.

Despite the reforms made over the last 10 years, Moldova's *business climate remains one of the weakest in the region*. This undermines significantly the country's efforts to boost competitiveness by attracting investment and makes the Republic of Moldova lose in the regional investment competition. Finally, these deficiencies limit the opportunities for the economy and lead to a decrease in the standard of living of the population.

Another factor that disadvantages the attraction of FDI is the *large number of state controls* as well as their discretionary character. In particular, according to several investors, institutions often abuse the right to organize controls, intervening in the business of companies without sound reasons, control decisions and necessary documents. Moreover, inspectors often request additional information and documents that create direct and opportunity costs and time consuming due to the lack of a unified electronic register system that would provide inspectors with all the information and documents required about companies directly subject to controls, without the need to involve companies in the process of obtaining them.

In addition, the regulatory framework contains several rather problematic segments that affect the conditions of business development. These are building permits, solving insolvency procedures, cross-border trade, protecting minority investors and connecting to electricity. These business deficiencies directly undermine the key objective of attracting investment for export growth. The procedures established by local authorities for obtaining building permits (which last for about 246 days) and the lack of updated urbanization documentation discourage investments. The low level of protection of minority investors and the tedious resolution of insolvency procedures also erodes the confidence of investors, especially of foreign investors [1].

Inflexible conditions on the labor market further complicate the problem of labor shortages. Employers perceive that labor law remains rigid and far from full transition to free market principles, especially with regard to termination of employment by dismissal, which creates an obstacle to the restructuring of entities. The Labor Code contains ambiguous rules on overtime hours, part-time work, conflict of interest. As a result, companies have a poor perception of the reliability of Moldovan labor law. According to the global competitiveness index for 2014-2015, Moldova ranks 93th out of 144 countries in terms of rigidity of employment and dismissal practices.

Another impediment in attracting FDI is the *lack of correlation between the educational offer of the education system and the demand from employers*. In particular, this problem is largely due to the lack of motivation and opportunities for the private sector to contribute more actively to

curriculum development, the definition of professional standards and the provision of practical training. Thus, sectoral committees set up to develop occupational standards have an unclear mandate and do not have sufficient institutional and budgetary support for efficient functioning. As a result, the Republic of Moldova does not yet have up-to-date occupational standards for most economic activities, including for export oriented ones. There is no regular evaluation of the relevance and quality of studies, the private sector is practically not involved in reviewing and updating technical specifications, norms and standards in the education system.

The low quality of government and the vulnerability of public institutions have always constituted some of the biggest constraints in business development in the Republic of Moldova. According to the Global Competitiveness Report for 2014-2015, 3 of the most problematic factors for doing business - corruption, political instability and inefficient administration - are directly linked to government and public institutions. Corruption is a critical issue, which creates considerable obstacles to attracting investments in the Republic of Moldova. Compared to other countries in the region, Moldova has one of the most unsatisfactory scores of the corruption perception index, developed by Transparency International, ranked 103rd out of 174 countries. Corruption has a negative influence on countries' ability to attract FDI, since it is perceived as a "profit tax" additional to the official one, as the cost of doing business grows and investment profitability decreases. Corruption raises the level of uncertainty business and derives from excessive bureaucracy, increased discretion in policy formulation and implementation, inefficiency of the justice system, low wages in the public sector, and low levels of economic freedom. Unfortunately, these factors are relevant for the Republic of Moldova, which creates risks of missing potential investment projects.

Compared with other countries in the region, over the last decade, Moldova has made *modest progress in improving the quality of governance*. The quality index of the regulations and the efficiency index of the governance in the Republic of Moldova, estimated by the World Bank, remained among the lowest among comparable states. The reform of the regulatory framework over the last decade has led to nonessential improvements for existing investors and has failed to improve the investment attractiveness of the Republic of Moldova. Moreover, recent banking fraud has revealed systemic issues related to moral hazard, conflicts of interest, opacity of property relations and improper regulations, which had a profoundly negative impact on the business climate in the country.

Low transparency in decision-making is another challenge in attracting FDI. Despite the presence of an adequate legal framework for decision-making transparency, its implementation is a major issue. For example, in 2013, about 47% of all policies that were addressed by ministries did not comply with legal requirements on decision-making transparency. Budgetary transparency is another serious problem: according to the budget transparency index, Moldova scores 59 points out of a maximum of 100 points, which means low transparency. Besides the fact that low transparency is a source of irresponsibility and corruption in the act of governance, it undermines the credibility of state institutions among the population and commercial entities [2].

Deficiencies in inappropriate law enforcement fuel investors' uncertainty about the protection of property rights. In particular, the institutional framework in this area is fragmented, weak and unstable. The main issues are:

- the lack of a strong institution that would promote investment projects of strategic importance;
- the lack of the position of Ombudsman of Investment, which would protect investors from possible abusive regulation and would facilitate the resolution of litigation and investment disputes;
- the lack of a functional mechanism for dealing with investor complaints.

As a result, investors' confidence in the local business climate and, in particular, in the mechanisms for preventing and resolving investment disputes and litigation is very low.

Inappropriate protection of property rights makes investments vulnerable to abuses and crimes. According to the "Heritage" Foundation's economic freedom index for 2015, Moldova does

not provide adequate protection of property rights. This vulnerability is expressed not only through the risks of expropriation on the part of the state, but also through those related to hostile corporate takeovers.

CONCLUSIONS / RECOMMENDATIONS.

Despite the fact that the Republic of Moldova has undertaken continuously measures in order to improve the investment climate and to attract foreign investors, it still has a lot of work to do in this regard. There are a lot of aspects in Moldovan economy that determine the foreign investors not to choose Moldova as destination of their investment. Moreover, some of the existing investors relocate their investment to other countries.

This is why, all the challenges and factors mentioned in this research need to be addressed in order to assure the confidence of foreign investors in Moldovan economy and investment climate. Moreover, the future public policies in the investment domain must rely on these challenges and propose actions and measures that reduce their negative consequences on the international investment image of the Republic of Moldova.

BIBLIOGRAPHY:

- 1.Ciobanu M., Dezvoltarea industriei prelucrătoare prin prisma investițiilor. Teză de doctor în științe economice.
- 2.Dialogul care să faciliteze fortificarea capacităților instituționale efective în cadrul agendei de dezvoltare post 2015”, PNUD Moldova și Expert-Grup, 2014.
- 3.Evaluarea competitivității industriei serviciilor tehnologilor informaționale și de comunicații în Moldova, USAID CEED II Moldova, 2014.
- 4.Global Competitiveness Report 2014-2015, [online]
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf
- 5.Introducere în sectorul automotivelor din Moldova, investiții în Moldova, Harta privind spațiile industriale de închiriere, Colliers International, 2015, [online]
www.colliers.com/en-gb/emea/insights/interactive-rents-map.

EVOLUTIONS AND TRENDS OF PUBLIC PRIVATE PARTNERSHIP IN THE REPUBLIC OF MOLDOVA

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Abstract. *The quality growth of the public administration act is a major objective of the public authorities involved in achieving the general interest of the citizens, both at central and local level. The worldwide practice has shown that public-private partnership is a good solution to solve the problem of the public finance management, as well as to attract investments in the sectors of the economy that cannot be privatized, but for which the state does not have financial, human and / or managerial resources to develop these sectors to the needs of the population.*

In order to contribute to attracting of private investments for the realization of public interest projects, the increase of the efficiency and quality of the public services and activities, the efficient use of public patrimony and public money, the government of the Republic of Moldova has created the necessary premises for the development of the public-private partnership.

The research and analysis of the legislative and normative framework, as well as the performances of the Republic of Moldova in the sector of the public-private partnership developments, have noted some success, but also have highlighted some risks that require improvements in order to achieve the settled goals.

Key words: public-private partnership, public property management, concession.

JEL CLASSIFICATION: G32, G38, H71, H83

INTRODUCTION.

The efficient administration of the state public property by public administration authorities is the basis for the economic regulation of each government. With the increasing public needs for public goods and services, this administration is becoming more and more difficult to conduct. The companies of strategic importance to the economies of many countries cannot be privatized and there are usually not sufficient financial resources in the state budget for their development. Not always having the resources to meet these needs, the public sector has found the solution to delegate the management of public services to private agents, which has proven to be more effective than the public one because of managerial experience, financial discipline, promptness and competitiveness.

The Public-Private Partnership (PPP) has been strengthened at international and European level over the last 50 years as a tool for public-private cooperation in order to generate more attractive opportunities for both investors and public authorities by selecting and implementing projects of strategic importance. The international legal commitments for the Republic of Moldova, that were at the basis of the stages of the public-private partnership development were: The Green Paper on public-private partnerships and community rules on public contracts and concessions of 1 April 2004 adopted by the European Commission, as well as some international agreements such as: the Memorandum on Economic and Financial Policies for 2007 signed between the Government of the Republic of Moldova and the International Monetary Fund, The European Parliament and Council Directive no. 2004/17 / EC of 31 March 2004, coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors, the Directive 2004/18 / EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts.

INSTITUTIONAL INFRASTRUCTURE. Although the cooperation between the public structures of the Republic of Moldova and the private sector has only one decade of experience, this field has undergone a rapid theoretical and practical development due to the contribution of such specialists and researchers as: Tincu V., Potlog I., Bogus A., Dodon S., Vinogradova N., Cretu I., who have studied the international trends in the development of public-private partnerships, presented their views on possibilities of modeling the efficiency of public-private partnership projects, analyzed the

possibilities of creating a public-private partnership in the form of commercial companies, have analyzed some risks that would undermine the effective implementation of partnership contracts.

Recognizing the positive effects of public administration collaboration with the private sector worldwide, the Republic of Moldova concluded in 2007 the agreement with UNDP on the development of the concept of public-private partnership and initiated the project of development of the public-private partnership through the main interested institution, the Ministry of Economy and Trade of the Republic of Moldova, which worked with the support of UNDP during the years 2007-2009 in order to elaborate the legislative framework regulating the public-private partnership, generating a series of modifications and completions in other normative and legislative acts.

Thus, the main normative act regulating partnership relations between public authorities and private economic agents in the Republic of Moldova is the Law no. 179 of 10.07.2008 on the public-private partnership. This law defines public-private partnership as a "long-term contract concluded between the public partner and the private partner for the performance of activities of public interest, based on each partner's ability to appropriately allocate resources, risks and benefits." [5]

As Vinogradova N. points out, the public-private partnership in the Republic of Moldova is seen only as a "contract" instrument, while the essence of the public-private partnership in Canada is conveyed by the term "approach" and in Romania - as an "economic mechanism". [3, p. 60]

The Green Paper on the Public Private Partnerships and the Community Law on Procurement and Concessions of the European Commission (30 April 2004) defines public-private partnership as "forms of cooperation between public authorities and the business universe aimed at ensuring the financing, construction, renovation, maintenance of an infrastructure or the provision of services".

The institutional and legislative normative basis for the development of the public-private partnership in the Republic of Moldova is formed at all levels. The competent public authorities are meant to ensure the initiation and implementation of the public-private partnership and to establish specific attributions and responsibilities for the designated authorities in selecting partners and monitoring the implementation of projects for the benefit of the state.

The National Council for Public-Private Partnership was established by the Government Decision no. 245 of 19.04.2012, having the mission to evaluate the public-private partnership's public policies and formulate recommendations to the Government in the priority and strategic sectors for capitalizing these partnerships, including recommendations for improving policies in this sector.

The inter-ministerial public-private partnership network was created as a consultative structure of general competence, without legal personality, consisting of the representatives of the central public administration authorities in order to coordinate the activities of public-private partnerships between the central public administration authorities and the public-private partnership unit of the Public Property Agency, having its competencies to ensure the integrated processes of implementation of the public-private partnerships policies, to identify deficiencies and barriers in the process of implementation of public-private partnership projects, as well as to identify ways of solving them, ensuring the implementation of public-private partnership development programs, based on the priorities identified in the policy documents, the dissemination of the best international practices. The Ministry of Economy and Infrastructure is responsible for promoting the state policy in the administration and privatization of public property, and the Public Property Agency, subordinated to the Ministry of Economy and Infrastructure is empowered with the administration and privatization of public property.

The Public Property Agency is the first pillar of public and private partner consultation on public-private partnership issues and provides advisory assistance to public authorities involved in identifying and managing public-private partnership projects. Its role as central public authority is to draft Government Decisions on the approval of the project objectives, the selection procedures and the general conditions for the public-private partnership. The Public Property Agency ensures also the overall coordination of all public-private partnership activities at national level. The Handbook on Implementation Practices of Public-Private Partnership Projects and Concession has been elaborated

to guide the central and local public authorities in initiating and implementation of the public-private partnership

The Ministry of Finance has the task to examine the proposals regarding the state budget participation in the implementation of the public-private partnership projects initiated and approved by the Government to monitor the process of execution by the public partner of the expenditures from the state budget for the realization of the public partnership projects of national interest.

LEGISLATIVE FRAMEWORK. The legislative-normative regulation of the public-private partnership in the Republic of Moldova is achieved through the Law on Public-Private Partnership no. 179-XVI of 10.07.2008, adopted in order to contribute to the attraction of private investments for the realization of projects of public interest, increasing the efficiency and quality of services, public works and other activities of public interest and efficient use of public patrimony and public money. The basic principles of the law are the equal treatment, impartiality, non-discrimination, transparency and proportionality. The law establishes that the rights, taxes, risks and benefits. Arising from the implementation of any PPP, must be balanced between the public sector and the private partner and presumes that the selection of the private partner and the award of the contracts has been the result of a fair competitive procedure between bidders. The other laws and normative acts come to regulate the activities in this sector:

- Law no. 534 of 13.07.1995 on concessions.
- Law no. 397 of 16.10.2003 on local public finances.
- Law no. 81 of March 18, 2004 regarding the investments in the entrepreneurial activity.
- Law no. 435 from 28.12.2006 on the administrative decentralization.
- Law no. 436 from 28.12.2006 on local public administration.
- Law no. 96 of 13.04.2007 on public procurement.
- Law no. 121 of 04.05.2007 on the administration and privatization of public property.
- Government Decision no. 245 of 19.04.2012 on the National Public-Private Partnership Council.

- Government Decision no. 419 of 18.06.2012 regarding the approval of the list of state property and the list of works and services of public interest proposed to the public-private partnership.

- Government Decision no. 476 of 04.07.2012 regarding the approval of the Regulation on standard procedures and general conditions for the selection of the private partner.

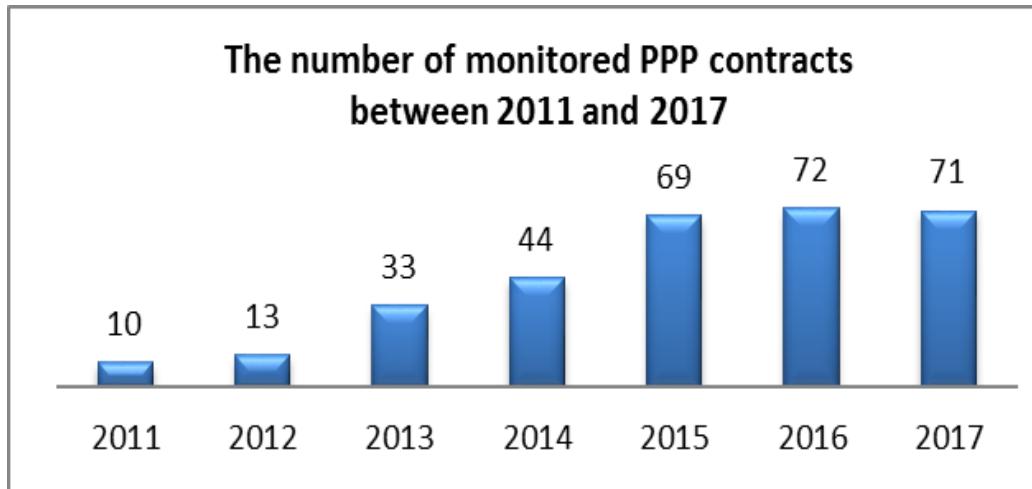
- Government Decision no. 255 of 11.04.2013 on the establishment of the Inter-ministerial Public-Private Partnership Network.

- Government Decision no. 414 of 21.06.2013 for the approval of the Regulation on the attraction of investments in commercial companies with public or public-private capital.

- Order no. 143 of the Ministry of Economy of 02.08.2013 regarding the approval of the preliminary project risk allocation matrix.

PPP PROJECTS. Having all the necessary structures, a legal and normative basis, the achievements of the Republic of Moldova in the public-private partnership are still modest. Most of the public-private partnership contracts in the Republic of Moldova, monitored in 2018 by the Public Property Agency have been sanitation services projects - 39 contracts (55%) were concluded in the form of a concession with the public local authorities; 18% out of public-private partnership projects, 13 concession contracts were concluded in the health sector and have been already carried out: the provision of radiology and diagnostic imaging services at the Republican Clinical Hospital, computed tomography center within the IMSP "Orhei District Hospital", dialysis services in Balți (two of the dialysis projects being concluded by a German consortium). In the social constructions sector, 5 projects have been currently monitored, 2 of which were concluded at the national level with the Ministry of Defense, having the object to carry out the design and the construction of the housing complexes.

Graphic 1



Source: Developed by the author on the basis of data on public-private partnerships according to the Public Heritage Registry on the situation of 01/09/2017 [9], the Official Communiqué of the Public Procurement Agency of 27.04.2018, no. 09-05-639

Not all the public-private partnership projects are accepted by the society, being criticized and considered to be detrimental to the public interest. The project of a national resonance, concluded on 30.08. 2013 is the concession contract with the foreign-owned enterprise, "AVIA-INVEST" of the assets of "Chisinau International Airport". In 2015 the concession of "Chisinau International Airport" was much discussed. The state authorities were trying to find reasons for the termination of the concession contract, seeking the legal possibilities not to pay the compensations to the concessionaire provided, in the case of the preventive termination of the agreement. The total amount of investments had to reach 244.2 million euros, and the concessionaire was to pay the state 1 percent of the income[7]. Obviously, there was also a provision stipulating that if the concessionaire would not comply with his contractual obligations, he would be terminated. The state cannot terminate the contract if the concessionaire respects all his obligations. Otherwise, he will be forced to return to the concessionaire the money and the lost income for all 49 years of concession, which would cost the state hundreds of millions of euros.

One of the most great public-private partnership projects proposed by the Government is the construction of the multi-purpose arena. In order to carry out this project, a draft Government Decision was prepared on the approval of the public-private partnership objectives and conditions for the design and the construction of the multi-purpose arena of national interest and the general requirements for the selection of the private partner, under the Art. III of the Law no. 52 of 23 March 2018 amending the Annex to the Law no. 668-XIII of November 23, 1995 for the approval of the List of units whose land for agriculture remains state property, the Art. 8 and the Art. 83 of the Land Code no. 828-XII of 25 December 1991 (republished in the Official Monitor of the Republic of Moldova, 2001, no. 107, Art. 817), with the subsequent modifications and completions, the Art. 6 paragraph. (1) lit. e1) of the Law no. 121-XVI of 4 May 2007 on the administration and privatization of public property(the Official Monitor of the Republic of Moldova, 2007, no. 90-93, Art. 401) and the Art. 11 lit. a), b) and e) of the Law no. 179-XVI of 10 July, 2008 regarding the public-private partnership (the Official Monitor of the Republic of Moldova, 2008, no. 165-166, Art. 605), with the subsequent modifications and completions. The Government intends to approve the passage of the land with the surface of 69,2224 square meters, located in Chisinau, Stauceni, from the public domain in the private domain of the state; to modify the category of destination of that land from the category of agricultural land in the category of land designated for construction; The Ministry of Agriculture, The Regional Development and Environment, through the Center for Excellence in Viticulture and Wine Making in Chisinau; to ensure that the perennial plantations located on this site are cleared and degrubbed; to submit is land, free of charge, from the administration of the Ministry of Agriculture, Regional Development and Environment

(management of the Center of Excellence in Viticulture and Wine Making in Chisinau) in the administration of the Ministry of Education, Culture and Research. The Ministry of Education, Culture and Research will ensure within 30 days the establishment and the registration of the "National Arena" Limited Liability Company(Ltd.);will create the surrender and reception commission and will transmit the ownership of the land as a contribution to the share capital of the "National Arena" Ltd.; will ensure the necessary conditions for the activity of the newly created commercial company; will monitor the activity of the established trading company and submit proposals to improve its activity; will ensure the organizing and the conducting of the public competition for the selection of the private partner, according to the provisions of the Government Decision no. 476 of 4 July, 2012 "For the approval of the Regulation on standard procedures and general conditions for selecting the private partner" [8]; will conclude the public-private partnership contract for the execution of the design and construction of the multi-purpose arena of national interest and will monitor the execution of the contractual obligations through the inter-ministerial commissions appointed for this purpose; will present proposals within the framework of the modification of the State Budget Law for 2018 by allocating the amount of 102,000,000 lei and for the year 2019 by the allocation of the amount of 100,000.00 lei as contribution to the share capital of the "National Arena" Limited Liability Company. It is expected that the Ministry of Finance, at the request of the Ministry of Education, Culture and Research, will ensure the transfer of the financial means amounting to 202,000,000 lei as contribution to the limited liability company "National Arena" on the basis of supporting documents. The Feasibility Study of the "Chisinau Arena" project has been elaborated showing that the Republic of Moldova will have direct benefits for the development of the economy and the promotion of the country's image, the economic benefits of the project being estimated at about 28 million, 70% will be assimilated to the national economy, 30% of the total investment of 40 million euros returned to the investor's home country's GDP. At the local GDP of Chisinau municipality, this project is expected to contribute to a 0.6% growth in the construction year. At the same time, the Ministry of Finance estimates that the amount of taxes collected in the budget will increase due to the partnership with 5.7 million euros during the construction of the arena. At this stage, 800 jobs will be created and after putting it into operation, the complex will have 48 permanent employees. The authors of the study mention that at every new place of work, three more will occur in the adjacent sectors, as a multiplication effect. Benefits are also expected on the labor market, which will offer over 190 permanent jobs. The estimates show that workers employed in the construction of the complex will receive a cumulative income of about 2.8 million euros and the permanent employees will get an income of over 20 million euros during the construction of the complex. Out of these amounts the state will receive almost 10 million euros, in the form of taxes. The duration of the public-private partnership contract is of at least 10 years. During this period, the reimbursement of the investment made by the private partner is to be made from the revenues obtained from the operation of the multi-purpose room and from the state budget. Finally, the Arena Chisinau will be the property of the state.

The rapidity to prepare all the conditions to fulfill this project demonstrates that the public-private partnership projects are facilitated with the support from the governing bodies, so that the private partners could carry out cooperative projects and their number should rise steadily, especially since the state also offers them other facilities. In order to stimulate the implementation of projects at the national level by attracting private investments for the realization of projects of public interest, on the basis of the Law no. 288 of 15.12.2017 on the amendment and completion of some legislative acts, the Fiscal Code, the Art. 103 was completed with a new paragraph (98), which provides VAT exemption without the right of deduction of goods and services imported by the partners in public-private partnership projects of the public interest works and services list. [4]For the proper application of the fiscal facilities, the Public Property Agency has developed a special regulation, which sets out the possibilities to apply for an exemption.

The sustainability and success of a PPP project depends to a large extent on the involvement and capacity of the local public authority to actively monitor and step in the implementation of the PPP project, if needed. The Article 22 of the Law no. 179 of 10.07.2008 stipulates that the public partner carries out annual control over the way of realization of the public-private partnership, also by

appointing an independent auditor. [5] Until implementation, PPP projects need to go through several key steps, both provided by legislation in force, and steps to identify the most feasible options for PPP projects. The obligation to elaborate feasibility studies can be justified by the fact that the decision to award a good from the public property has to be analyzed in terms of economic, social, legal and technological factors.

Why is there in the Republic of Moldova a passive interest of the private sector for partnership projects with the public authorities? One of the reasons would be the long recovery of investments. Projects are usually long-lasting and Moldovan legislation is unstable. The lack of interest from the economic agents for some buildings, services or works is often explained by the fact that the objectives are not economically attractive. Usually the national investors make short-term business calculations, during which they can fully recover their investments.

At the same time, the present legislation is not perfect and it creates risks for the state and private partners. For example, there is a lack of an interpretation of the most important aspects of PPP regulation in the Public Private Partnership Law and the Law on Concessions. As one of the forms of PPP, the PPP Law provides that concessions are governed by concession law. The Law on Concessions, adopted in 1995, amended in 2003, by the Law no. 240-XV of 13.06.2003, in 2006 by the Law no. 268-XVI of 28.07.2006 and in 2010 by the Law no. 181 of 15.07.2010 does not indicate that the concession is one of the forms of public-private partnership, comprising also discrepancies with the PPP legislation. There is, therefore, an increased risk of non-compliance with the procedure required for concessions, which could negatively affect the public interest as well as the interests of the private partner. The last relevant example is the the concession of the Chisinau National Airport, the rescission of the contract, which could have caused the state considerable losses.

In order to ensure the success of the public-private partnership projects, the law requires the observance of the principles of equal treatment, impartiality and non-discrimination towards all bidders to avoid the unjustified barriers and to ensure a fair competition. The transparency in the selection of the private partner requires that the public is informed of the decisions to be taken, the meetings of the private partner's selection committee are public and the final results of the selection process are published in the Official Monitor of the Republic of Moldova and on the web site of the Agency. The principle of proportionality imposes conditions for compliance with the obligations of the Contracting Parties and allows a recovery of damages in case of a breach of contractual provisions by one of the parties. The principle of balance aims at the risk-sharing between the public partner and the private partner, which is carried out in accordance with the terms of the contract between them. Each type of risk is assigned and the share of the risk allocated to each partner is evaluated before the conclusion of the contract under the Preliminary Matrix project risk distribution, which is an indicative risk sharing model in public-private partnership projects to assess the predictable risk categories that may impact on the project, describing their allocation algorithm according to the ability of each participant in the public-private partnership, to manage risk in the most efficient manner so that the long-term cost of the project is the lowest compared to the cost-benefit analysis. All the risks that may arise in a public-private partnership project are anticipated by the public partner in the feasibility study, which includes a complex analysis that would define and quantify, in economic and financial terms, the project risks, taking into account the scenarios identified by sharing them among partners with rational reasoning in the study. The principle of cooperation is perhaps the most important principle in cooperation between partners. The public partner offers assistance to the private partner in the process of obtaining permits, authorizations and other documents related to the implementation of the public-private partnership, provided by the legislation or contract. The public partner is not entitled to refuse permissions, authorizations and other documents related to the implementation of the project which he initiated if the issuance is carried out according to the legislation, without any grounds stipulated by the law. The bilateral observance of these principles will lead to a harmonization of the cooperation between the parties and to a motivation of the other private economic agents to come up with the initiative to participate in public-private partnerships

with public authorities and to contribute to the achievement of the national and local strategic interest objectives, gaining mutual benefits from collaboration.

As Tincu V. mentioned, the foreign doctrine that studies the tendencies in the administrative system and worthy to be considered in the sector of public services, namely the British professor Mark Evans, who examines trends in the evolution of public services, starting from the concept of the New Public Management, draws a particular attention to the following factors that influence the public services:

- the privatization of the state assets and the public services.
- the emergence of new outlets for public services. (e.g. old people care services)
- the performance-based budgeting.
- the implementation of competitive tenders, resulting in public services, provided by the private or associative sector.
- one-stop shops - establishing a single supply system to eliminate redundancies.
- quality standards - based on the application of quality management principles, citizens' petitions and performance appraisal.
- decentralization - shifting the responsibility in the public services from the central government to the local public administration.
- an open government - a free access to the information on public services, e-Government and
- the involvement of citizens in public service activities through forums and other means of discussion.

All these tendencies, according to Tincu V., are largely applicable to our state and they are necessary to be taken into consideration. [2, page 82]

CONCLUSIONS.

The quality growth of the public administration act is a major objective of the public authorities involved in achieving the general interest of the citizens, both at central and local level. The benefits of the public-private partnership projects should be taken into consideration, because they lead to:

- the optimization of the quality of public services by setting requirements for private partners to come up with new solutions at low prices;
- the graduation of public budgets from some expenses generated by the provision of services, through their transfer to the private sector, which has the potential of applying innovative solutions;
- the compensation of the lack of strategies and innovations specific for certain public sectors;
- the creation of business opportunities for the private sector;
- risk sharing etc.

All these benefits should encourage public administration and create the most favorable conditions for the developing cooperation with private partners, satisfying the needs of the society and solving, at the same time, more important problems of different economic, social, energy, environment and other less important sectors.

The Public-Private Partnerships should be developed according to the country's Strategic Development Plan, taking into account priority areas such as infrastructure, health, education, transport, telecom, as well as innovation, research and development.

In order to ensure the expected results and avoid failures, it is necessary to coordinate the activities and decisions: a quality management of the joint action through the acceptance by the partners of common rules and operational rules; the negotiation of legally well-structured partnership contracts; monitoring the private partner's actions at all stages of investment realization and exploitation, which requires the public sector knowledge about entrepreneurial management, because the lack of competence in the public institution could create difficulties in the management of the public patrimony.

REFERENCES:

- 1.MIHALACHE IU., Theoretical and practical aspects regarding public-private partnership. The National Law Magazine, no. 8, 2012, pp. 21-26

- 2.TINCU V., Challenges of the direct management of public services by public administration authorities. The Public Administration, no. 3 (95), 2017
- 3.VINOGRADOVA N., The analysis of the factors and the forms of Public-Private Partnership in the Republic of Moldova, Annals of the National Institute of Economic Research, 4th Edition, no. 1, 2014, pp. 59-64
- 4.The Fiscal Code * no. 1163-XIII of 24.04.1997
- 5.The Law of the Republic of Moldova on public-private partnership no. 179 XVI of 10.07.2008, Official Monitor of the Republic of Moldova, 2008, no. 165-166
- 6.The Law of the Republic of Moldova on the administration and privatization of public property no. 121 of 04.05.2007, Official Monitor of the Republic of Moldova, 2007, no. 90-93
- 7.The Decision of the Government of the Republic of Moldova no. 438 of 19.06.2012 "On the initiation of the public-private partnership project for the concession of "Chisinau International Airport", Official Monitor of the Republic of Moldova, 2012, no. 126-129
- 8.The Regulation on Standard Procedures and General Conditions for Private Partner Selection, approved by the Government Decision no. 476 of 04.07.12, Official Monitor of the Republic of Moldova, 2012, no. 143-148
- 9.www.app.gov.md, accessed on 29.04.2018

TENDINȚELE EVOLUȚIEI PIETEI PRODUSELOR BANCARE

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Abstract. *The banking system in Republic of Moldova has experienced dramatic changes over the last years. The recent crisis and migration of clients to other financial institutions reduced banks' intermediation function. The sharp acceleration in the pace of innovation has altered the traditional face of the international financial system. In these circumstances, banking products also need to be improved. The purpose of this article is to track the evolution of banking products and to identify the amendments the banking industry needs. For the research were used the following methods: analysis and synthesis, induction and deduction. The most relevant findings are that in order to maintain current and attract new customers, banks need to implement a customer centricity approach. Because the microfinancial institutions and payment service providers absorb innovations faster, banks need to implement the diversification strategy to upgrade of their core product/ service, for adding additional new features/ services or by developing new products to increase customer satisfaction and bank competitiveness within the financial market.*

Key words: banking industry, banking products, innovation strategies, bank competitors, disruptive technology.

JEL CLASSIFICATION: G21, O10.

Nowadays, mankind is in a new stage of development in which information, communication and knowledge are the essential elements underlying the evolution of society as a whole, as well as of any field of activity. In the process of developing an innovative knowledge-based economy, it is important to identify priority development directions in a key sector of the national economy, as the financial and banking sector, which must be a strong one.

The vision of the banking system described in the article is more evolutionary than futuristic, because it will mention some improvements (already in progress in the banking system), not the radical changes (as blockchain technology).

The last years, especially in times of crisis, banks and financial markets are considered the birthplace of destabilizing factors in a number of developing countries. Depressions have shown that financial stability may be jeopardized by competition from the banking sector, because it creates pressure on profit margins and encourages banks to take additional risks at the expense of prudent capital.

The capacity to anticipate the future depends on the ability to assess the potential risks. This is realized by each of us using the ability to weigh the probability of an event to take place- ability confirmed in the modern age by means of mathematical models. However, the ability to foresee what the future holds is affected by uncertainty, as was the case with the Moldovan crisis in 2015-2016. Alan Greenspan noted that, "there is a degree of historical continuity in the way democratic societies and market economies work." This means there is a persistent stability that can be used to infer how the future can look. So, as history repeats itself, all that it is left to do is learn the lessons of the past. In this article will be mentioned the evolution of banking products in order to identify the current tendency of the banking market.

Be analyzing the evolution of the banking sector at a global level has allowed us to identify the following prerequisites for the transformation of the banking industry:

- increasing competition in the financial and banking sector;
- the modernization of banking technologies, which has a significant impact on the quality of banking services, as well as on the increase in the number of operations and services. Diversification of the banking industry is done by expanding the range of banking services and applying non-bank money-raising methods (bond issue);

- developing information technologies and means of communication. This brings real advantages for competitiveness, by implementing efficient information systems and by individualizing the client-client relationship;
- processes of internationalization and globalization in the banking sector that impose general standards and rules peculiar to the global market (such as Basel III);
- expanding the field of activity of the crediting institutions, the banks penetration on the foreign markets;
- liberalization and universalization of banking activity, which requires the development of new banking services, including from the perspective of market expansion.

Following this idea, it can be stated that in the future, banking development will focus on the following structural changes in the banking sector:

- Entry into this branch- as transactions decline, branches transform into more information exchange/meeting point. For example in the USA, some branches are now incorporating other amenities like cappuccino machines and large interactive touch pads, etc. From outside these branches don't look like banks from republic of Moldova.
- Diversification of banking activity- introduction of off-balance sheet activities. Looking retrospectively, in our country off-balance sheet activities as bancasurance and guarantees had impact on profits of the banks and for future, may induce riskier banks to become safer [1].
- Development of services on the capital market, banks, as investment companies, offer to the legal entities, under the „C” type license issued by the National Commission for the Financial Market, some services and activities in the capital market (advice, custody of financial instruments, execution of orders relating to financial instruments on behalf of customers, reception and transmission of orders relating to financial instruments).

Bank products and services are offered to a fairly diversified customer base, which, depending on the size of the business, is grouped into two broad categories: legal entities and individuals. The products and services are the same, regardless of the category of customers they refer to, but what differentiates them is the customer preference for certain details of the products/services that best fit the specifics of their business, size and status.

In the struggle to attract potential clients, banks can adopt two strategic options: universalization or specialization. Practice has demonstrated the viability of both options, although some specialists in the field believe that universal financial institutions will be able to win, as they are able, despite the existence of the interstate borders, to offer a wide range of services, first of all, various types of lending, with securities, underrating (assurance against risks), investment planning, etc. Experts in the field appreciate that in the future, the banks' activities will be directed towards lending, trust services, cash management, new types of services, such as the use of processor cards smart cards, various mortgage schemes, real estate transactions. Regardless of the way in which banking industry evolves, either as universal financial institutions (within the global system) capable of providing the client a broad spectrum of banking services, or specialized banks with services focused on certain issues. At the present stage, relational marketing must be the basis for customer relationships. The clients should be motivated to become "lifetime clients" of the bank by developing a personal connection, which has not been seen in the past years in client-to-bank relationships in the Republic of Moldova. At the same time, we cannot neglect the evolution of the client-bank relationships, which in recent years have also made positive evolutions, the banks adapting more quickly to market needs. Thus, as a result of the socio-economic and technological development, consumers' requirements towards products and services offered by banking institutions are steadily increasing. The variety of products and services offered by the bank is one of the advantages sought by customers in its relationship with the bank. If in the past the bank's offer consisted of a standard package of products and services, nowadays innovations through product and service diversification and differentiation are common strategies for serving different types of customers - large, small companies, individuals. Although most consumers remain users of traditional banking services, the number of people asking for new types of services, especially

digitized technologies, is rising. That is why it is considered that banks need to implement the diversification strategy by upgrading their core product / service by adding additional new features / services or by developing new products and services to increase customer satisfaction and bank competitiveness within the financial market. Customer satisfaction is the psychic state that occurs to the client in the situation when the perceived characteristics exceed their expectations. The intangibility of the banking services increases the risk perceived by customers for a new product or service and, therefore, some of them accept the innovations slower. At the same time, the tendency to bring onto the market innovative products are dictated by the environment and the need to continuously update and adapt existing products to new consumer demands. The adjustment of the characteristics of banking products and services to the expectations of consumers should become a priority not only for the bank but also for a permanent strategic planning.

To maintain the current customers and attract new customers, banks need to implement "service packages" more actively. Internet banking includes a very advantageous product package, useful to customers and increasing customer satisfaction but due to risks, still too many of them remain reluctant. Therefore, a communication policy aimed at preparing the population to use new services would be necessary and timely, while initiating actions to restore people's confidence in the Moldovan banking system, to build and consolidate a favorable image of the population.

Another strategic alternative for products and services of a bank should be the concern about increasing the quality level, the quality-oriented strategy of having a dominant position towards the others due to the intangible and inseparable nature of services. Improving quality is only feasible if the organization succeeds to manage customer perceptions in line with their expectations.

If we look carefully at the economic history, we notice two kinds of changes. Some legal or economic institutions are changing slowly enough to allow us to anticipate the future with relative accuracy. But, from time to time, there are rapid or extensive changes of a legal or institutional nature. Such events occur, as a rule, following a deep crisis. This seems to be the case from the Republic of Moldova. New regulations, new processes and innovation are required to organize the banking industry [5].

The other option for improvement is to actively collaborate with tourism firms, and real estate agencies; the notion of "entry into the branch" may also imply the creation of "domestic banks" by transnational corporations (a form of cluster). For example, transnational companies from abroad fully serve the financial needs of their founders across the country and provide a wide range of services to foreign clients. A special role in the banking practice has the leasing service, which is required for the procurement of equipment, machinery, equipment, etc. the other good practice often used by banks is to work with trading partners. For example, European banks, to sell their products to commercial agencies. In the long run, this trend can favor the development of clusters.

The increase in the volume of extra-balancing services is conditioned by the increase in the role of consultations, the absorption and merger moves of enterprises, the search for the strategic investors, informational customer business, privatization, bankruptcy processes, of information technologies that provide customers with real-time access to the database and quick troubleshooting.

An important role in the development of banking activity is held by consumption credit, which until yesterday was an unprofitable service. Today, the consumer credit segment has become one of the most developed segments of banks. Cash flow management, which includes cash in, making payments on clients' behalf, investing cash surplus in short-term securities, and bank lending until the client requests the money. Moreover, if until recently the banks were specialized in managing the cash flow of companies, lately, there was a growing tendency to spread this service in the field of servicing individuals which, more likely, is due to enhancement of number of cards, digitalization and cashless payments.

The improvement of electronic technology and the emergence of new types of banking products and services imply new types of functional and financial risks, whose minimization or rationalization in the future will be the strategic objective and the main task of banking

management. In our opinion, competence, experience of providing services, knowledge of the optimal transaction mechanism, highlighting and assessing the risks associated with each phase of the transaction is important.

A retrospective analysis of banks' evolution leads to the distant past. Thus, there is firm evidence that in the antiquity the Babylon and Egypt temples carry out lending and depositing activities (18th century BC). Near Babylon, in modern-day Iraq, services to secure valuables and extend business loans were also emerging. Later, in the sixth century, Greece's state-owned cities began to issue their own coins, which led to the need to change a basket with another, which could be considered the first currency exchange. The evolution of trade has also led to the development of banks, products and services offered by them. With time(even during wars) , these banking services became increasingly important to a nation's economic advancement. Under strict government supervision, banking grew, attracting investors from the private and public sectors throughout the realm.

In 1857, the National Bank of Moldova was established in Iasi, and in 1866 in Bucharest, the Bank of Romania. In 1880, the National Bank of Romania was set up as a joint stock company with an initial capital of 30 million lei, of which about 10 million were state-owned. As the economies of the countries develop, the increase of the competition at national and international level, the number of banks has increased and their specialization fields was marked according to the needs of the clients. This process is more pronounced in the second half of the 20th century. To the end of this century is noticed the focus of the bank that seeks to provide the products and services requested by the market and is less concerned about the way of servicing the clients (according to the principle of who needs me, will find me) [2].

Currently, according to the last competitiveness report of World Economic Forum (WEF), the most developed financial system is in Hong Kong. To the rank participated 144 countries.

Table1. Ranking of the countries according to the “Financial market development”

| Country | Place | Score in the rank |
|----------------------------|------------|-------------------|
| New Zealand | 1 | 5.8 |
| United States | 2 | 5.7 |
| Singapore | 3 | 5.7 |
| Finland | 4 | 5.5 |
| Hong Kong SAR | 5 | 5.5 |
| Australia | 6 | 5.5 |
| Canada | 7 | 5.4 |
| Switzerland | 8 | 5.3 |
| Norway | 9 | 5.2 |
| Sweden | 10 | 5.2 |
| Republic of Moldova | 124 | 3.1 |

Source: The global competitiveness report 2017, 8th pillar in WEF Report, World Economic Forum

It is important to mention that in 2015 Republic of Moldova held place 100 in the rank, and in 2 years it downgraded with 24 places or from a score of 3.7 to 3.1. At the same time, in 2017, Romania was ranked on 88th place and Ukraine on 120 [3].

With a whole world full of great ideas and best practices spread throughout other industries, it's a series of missed opportunities that banking can't ignore [4]. So, in the author's point of view, the development trends of the banking industry may imply the following criteria:

- Working with business partners. On 20th of April, this year, one of commercial banks (B.C. Moldova Agroindbank S.A.) from R. Moldova signed a bilateral agreement with the Government of the Republic of Belarus. This is the first example of an international public-private partnership that brings benefits for both parts. Under the agreement, residents of the Republic of Moldova will be able to benefit from credits up to 5 years for the purchase of agricultural and industrial machinery

and equipment produced in Belarus. In order to boost bilateral trade, the Government of Belarus will compensate the interest paid by the beneficiaries.

- Developing clusters. Many banks from abroad practice collaboration with research institutions or universities. This kind of collaboration has pluses as being closer to research hubs it is more likely to be innovative and the universities may deliver qualified employees or simply be closer to potential clients. Some experts believe that clusters may be made even with social media sites. As technology now allows, identification and connection of an account to the site will facilitate the use of online banking.

- Increasing the volume of extra-balance services.

- Cash flow management. Finding ways to ease cash flow management may lead to a faster cashless payments, security and transparency.

- Service for individuals. Loyal clients usually bargain the conditions of the requested services as there are created interpersonal relations between the client and the bank employee. But it would be appealing for the potential clients to know that the bank's policy is to offer certain benefits for loyalty.

Latterly, in the Republic of Moldova the banking sector confronted an emphatic competition from other participants on the financial market. These participants offer services in very convenient conditions, with shorter processes and less documentation.

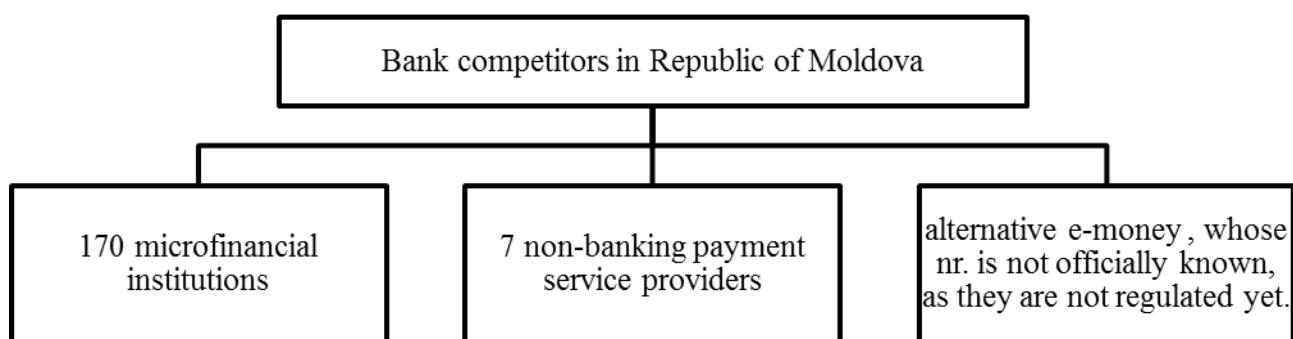


Figure 1. Competitors of the banking sector

Source: Made by the author using data from cnpf.md and bnm.md

Microfinancial institutions provide credits with to the categories of clients that banks reject (start-ups or clients with urgent needs). This implies a greater risk, but also a higher rate of return. In contrast to those, banks are excessively prudent, and due to this are forced to reject some of the credit requests. In addition to that, the microfinancial market becomes more and more regulated and in consequence- more trustworthy for clients. Non banking payment service providers are extremely innovative and also offer very handy service that may reduce the turnover within the banks. In relation to alternative e-money, is still in shadow, but due to its lack of regulation and cheap and fast transfers is gaining popularity. Currently there are usually registered as ordinary legal persons and they do payments or transfers on clients' behalf for a commission in return.

Currently in Republic of Moldova, Banks granted credits in March at an average annual rate of 9.35%, decreasing by 1.68 percentage points on a year earlier. At the same time, the weighted average interest rate for credits in national currency decreased by 0.12 percentage points, according to the data published by the National Bank of Moldova.

Banks in the Republic of Moldova recorded a gain margin in March (the difference between interest rates on loans and interest on deposits). Banking margin for national currency operations constituted 4.69 percentage points, decreasing by 0.24 percentage points on the previous month. Interest rates declined as of June 2016 on both the loans and the deposits segment, but the bank's profit margin increased because the interest rate cut was higher for deposits than for loans to customers.

According to data from the National Bank of Moldova, loans granted on terms of 2 to 5 years were the most attractive. In March 2018, their share represented 40.59% of the total volume of credits in national currency. The average rate of these loans was 8.96 percent (up by 0.01 percentage points over the previous month). The major share of the new credits in national currency, 60.15% of the total volume of credits in national currency, accounted for credits extended to legal entities with an average rate of 9.67%. At the same time, individuals were granted loans in national currency at an average rate of 8.84 percent. Currently, bankers earn most from the segment of loans to individuals, and more recently to mortgage loans. Banks focus on lending to individuals, as the central bank has imposed certain restrictions on lending to the business. Economists claim that the high margins are caused by the lack of competition in the Moldovan banking system.

In conclusion, it may be stated that in order to keep pace with evolving financial market, and obtain higher profit margins, banks need to review the following prospects for the development of the banking industry:

- higher degree of transparency in the banking system;
- improve the legal framework for reducing the time the client is being analyzed;
- to increase the importance of personal approach with the clients.

REFERENCES:

- 1.Saibal Ghosh , D. M. Nachane, Off-balance sheet activities in banking: Theory and Indian experience, [Disposable online: <https://www.researchgate.net>] ;
- 2.Dumitrescu L., Apostu C., Marketingul și calitatea serviciilor. București: Editura Expert, 2009, 275p. ;
- 3.Chad Davis, 10 Branch Banking Innovation Strategies for 2016, The Financial Brand, 2016, [Disposable online: <https://thefinancialbrand.com>].
- 4.The global competitiveness report 2017, World Economic Forum [Disposable online: www.weforum.org]
- 5.Карпова С.В., ФИНАНСОВЫЙ МАРКЕТИНГ. Учебник и практикум для бакалавриата и магистратуры, Финансовый университет при Правительстве Российской Федерации (г. Москва), 2015, 424 р.

SECTIUNEA IV: **Contabilitate, audit, analiză economică**

ECONOMIC ANALYSIS OF WATER SUPPLY AND SANITATION SERVICES IN THE CENTRAL DEVELOPMENT REGION OF THE REPUBLIC OF MOLDOVA

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Abstract. In this paper, is studied the level of infrastructure development of water supply and sewerage services in the Central Development Region. This research reflects an economic analysis of the provider's activity of the water supply and sanitation service, in the urban localities of the Central Development Region of the Republic of Moldova.

Keywords: water, sewerage, cost, tariff

JEL CLASSIFICATION: Q15, Q57

INTRODUCTION

„Water is not a commercial product like any other, but, rather, a heritage which must be protected, defended and treated as such.” [4] Water represents the environmental factor with the greatest impact on health.

The major changes that occurred with the decentralization of the water supply and sewerage services of the Moldovan localities and their transfer from state ownership to the administrative-territorial units, has led to a deterioration of the technical condition of the water supply and sewerage system in its entirety. Due to subsidies that were given in the last years to the water supply and sanitation sector, the situation has been improved.

Feeding the population with drinking water in sufficient quantities is a major problem. In the Republic of Moldova, is distributed to consumers, each year, 25.2 cubic meters of water per capita, from which, in the Central Development Region, this indicator is twice as small, being only 12.1 cubic meters of water per capita.

The Central Development Region (CDR) includes 13 districts: Anenii Noi, Calarasi, Criuleni, Dubasari, Hincesti, Ialoveni, Nisporeni, Orhei, Straseni, Telenesti and Ungheni. The area of the region is 10.6 thousand km² or 31% of the total area of the Republic. The CDR includes 14 urban localities and 587 rural localities.

All (100%) of urban districts are covered with water supply and sewerage services. Approximately 46% of rural districts CDRs have centralized water supply systems and only 6% of these localities have centralized sewerage systems.

The study aims to make an economic analysis of water supply and sanitation services in the CDR. The main objectives of the research are: to study the level of endowment and functionality of the infrastructure of water supply and sewerage systems; analysis of income and expenditure related

to water and sewerage services of urban localities in the CDR; analysis of the economic profitability of water supply and sewerage service providers in the CDR.

Analysis of bibliographic sources

In the first place, was studied the official documents which stays on the basis of the regulation of the water and sanitation sector in the Republic of Moldova, such as: Environmental Strategy for 2014-2023 and the action plan for its implementation [7], The Water Supply and Sanitation Strategy 2014-2028 [6], National Program for the Implementation of the Protocol for Water and Health in the Republic of Moldova for 2016-2025 [8], Decision no. 741 of National Agency for Energy Regulation from 18.12.2014 on „Methodology of determination, approval and application of tariffs for public water supply, sewerage and waste water treatment services” [5], and others documents.

The field of water supply and sanitation services was reflected in the monographs, the scientific articles published in specialized journals, as well as the doctoral theses of many autochthonous authors, for example: Todos I. [11], Bacal P.[1;2], Capcelea A. [3, p. 392], and others. Studies and researches that were made by these authors represent a theoretical and practical value.

Materials and methods

The scientific research methods used in this study were:

- Periodic observations, with which they were collected and systematized in dynamics for the years 2011-2016, next indicators: the number of (including functional) water and sewerage systems, incomes and expenses of water and sewerage service providers.

- Economic and mathematical methods were used to determine the density of systems, expressed as a ratio between the number of localities and the number of water and sewerage system; to calculate the system functionality rate, which represents the ratio between the number of functional systems and the number of total systems; to determine the difference between tariff and cost for both types of services.

- The statistical grouping method, was used to divide the average values of the water and sewerage systems density into four groups. For water supply systems, the minimum density is 0.7 localities per system, but the maximum is 9.5 localities per system, so it was obtained the step groups: 2.2 group. For sewerage systems, the minimum density is 2.8 localities per system, and the maximum value is 41.0 localities per system, the grouping step being 9.5.

- Cartographical methods were used for spatial placement of density groups of water supply and sewerage systems. The software that was used in this study was ArcGis.

- Graphic methods were used to graphically represent the average functionality of water and sanitation systems in the studied region.

- Analytical-comparative methods were applied a long the study to analyse and compare indicator values between localities.

As informational support were used: National Bureau of Statistics Reports on Water Supply and Sewerage Systems [10] and Annual Reports “The financial and production indices of the activity of water supply and sewerage enterprises of "Moldova Apa-Canal" Association”, for the years 2011-2016 [9].

RESULTS AND DISCUSSIONS

1. The level of endowment and functionality of the infrastructure of water supply and sewerage systems

Density of aqueduct and sewerage systems

The differences in the water supply and sewerage infrastructure, between the districts are more obvious than those at the regional level.

Low density of the number of localities per aqueduct system (Figure 1) is present at 7 from 13 districts (54%). For sewerage systems, the low density of the number of localities per system is present in 6 from 13 districts (46%).

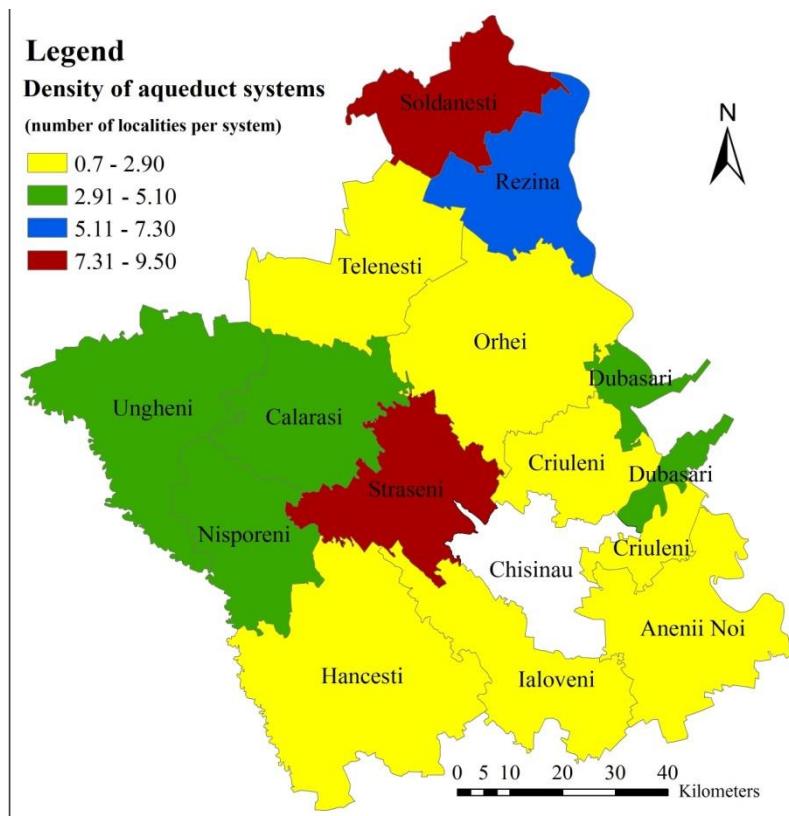


Figure 1 "The average density of aqueduct systems (number of localities per system) in the CDR for the period 2011-2016"

Source: Figures 1 and 2 are elaborated by the author after to the data of the National Bureau of Statistics. [10]

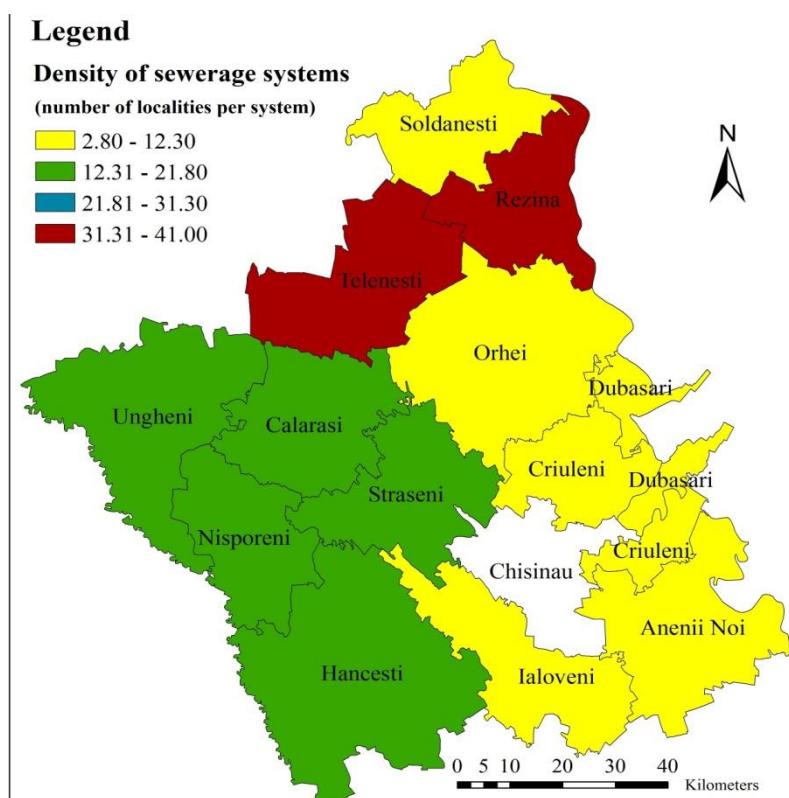


Figure 2 "The average density of the sewerage systems (number of localities per system) in the CDR for the period 2011-2016"

In the analysed period, the highest density of water supply systems have the districts of Soldanesti 9,5 localities per system and Straseni with 9,3 localities per system.

The districts such as Anenii Noi, Ialoveni, Orhei, Criuleni, Hincesti and Nisporeni have a moderate density of the aqueduct and sewerage system.

The localities with the highest density of the number of localities per sewerage system (Figure 2) are Telenesti districts with 40,5 localities per system and Rezina with 41,0 localities per system.

The situation is improving thanks to the total subsidies granted to the region, in the period 2011-2016 by the National Ecological Fund in the amount of 913 million MDL and the Regional Development Agency in the amount of 892 million MDL.

Rate of functionality of aqueduct and sewerage systems

Total per region, rate functionality of water supply systems is higher than the rate of functional sewage systems as a result of generous funding water supply projects.

So, Rezina district has the maximum level of functionality, 100% for both systems due to the modern machines that have a wear degree below 20% compared to other localities in the region.

At 3 from 13 districts, a sewerage system operating rate below 50% is observed due to the high wear of the systems, which vary between 60-70%, as well as low capacity of consumption and payment of consumers.

Therefore, the expansion of infrastructure of water supply must be necessarily accompanied by the extension of the sewerage system. These requirements were recently included in the legislative acts that regulating this area, as well as in the Regulations of the activity of the water supply enterprises, of the environmental and regional funds, that finance such projects. In spite of their compulsory nature, these requirements often are not respected.

2. Analysis of incomes and expenditures in water supply and sewerage services

In the years 2011-2016, the incomes of enterprises in urban areas of the Central Development Region, recorded a significant positive dynamics for supply and sewerage services. Incomes from water supply services (Table 1) that increased faster (+ 53%) than expenditures (Table 2) for this service (+ 40%), as a result of the significant increase in tariffs (+ 64%).

The biggest increase of sales income is seen at the enterprises in Soldanesti and Straseni (\approx 3 times), Hincesti (\approx 2 times), Orhei and Calarasi (1.5 times). At Rezina and Criuleni enterprises (20%) are registered the minimum growth. The growth of sales income from water supply services by region are increase with 1.5 times.

The maximum increase in water service expenditures (Table 2) is observed in Telenesti (\approx 3) and Straseni (\approx 2) districts.

Table 1. Income from water supply services, million MDL

| Urban localities | Years | | | | | | Growth, % |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Soldanesti | 0,4 | 0,4 | 0,4 | 0,4 | 1,2 | 1,0 | 294 |
| Rezina | 3,9 | 4,1 | 4,2 | 4,4 | 4,8 | 4,7 | 120 |
| Telenesti | 1,0 | 1,1 | 1,2 | 1,2 | 1,3 | 1,3 | 134 |
| Orhei | 9,0 | 10,3 | 11,5 | 12,1 | 13,5 | 13,9 | 154 |
| Criuleni | 1,5 | 1,6 | 1,5 | 1,7 | 1,8 | 1,9 | 124 |
| Anenii Noi | 3,3 | 3,5 | 3,9 | 4,0 | 4,2 | 4,3 | 129 |
| Straseni | 2,0 | 2,6 | 3,1 | 4,0 | 5,0 | 5,2 | 263 |
| Calarasi | 3,0 | 3,7 | 4,4 | 4,5 | 4,7 | 4,6 | 151 |
| Ungheni | 7,8 | 10,1 | 11,3 | 11,3 | 11,2 | 10,9 | 140 |
| Hincesti | 3,5 | 4,0 | 4,8 | 5,4 | 6,4 | 6,5 | 184 |
| CDR | 35,4 | 41,3 | 46,3 | 48,9 | 54,1 | 54,2 | 153 |

Source: Tables 1-6 and figure 3 are elaborated by author after [10]

Table 2. Expenditure on water supply services, million MDL

| Urban localities | Years | | | | | | Growth, % |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Soldanesti | 0,8 | 1,4 | 0,9 | 0,9 | 1,2 | 1,3 | 163 |
| Rezina | 3,7 | 4,0 | 4,3 | 4,3 | 4,8 | 5,0 | 135 |
| Telenesti | 1,0 | 1,2 | 1,2 | 1,6 | 1,8 | 2,7 | 265 |
| Orhei | 11,6 | 9,4 | 10,4 | 10,3 | 12,2 | 14,2 | 122 |
| Criuleni | 1,7 | 1,7 | 1,7 | 2,3 | 2,7 | 2,6 | 150 |
| Anenii Noi | 3,6 | 4,1 | 3,5 | 4,0 | 4,5 | 4,5 | 125 |
| Straseni | 2,9 | 3,7 | 3,6 | 4,5 | 5,6 | 6,0 | 209 |
| Calarasi | 3,9 | 4,3 | 4,0 | 4,8 | 5,8 | 4,9 | 126 |
| Ungheni | 10,2 | 11,2 | 12,0 | 11,5 | 12,8 | 12,8 | 126 |
| Hincesti | 4,5 | 4,7 | 5,0 | 6,3 | 7,0 | 7,6 | 168 |
| CDR | 43,9 | 45,8 | 46,6 | 50,4 | 58,5 | 61,6 | 140 |

The incomes from sales of sewerage services of the enterprises in urban areas of the Central Development Region are 30.3 mln. lei (Table 3), but the expenditures amount to 39.3 million lei (Table 4). The maximum spore in sewerage income is seen in Calarasi (54%), Rezina (47%) and Orhei (41%). The lower growth is explained by the lower coverage, as well as by the lower tariffs for sewerage services, compared to water supply services.

The maximum spore in the costs of sewerage services is seen in the companies from Telenesti - where they grew up three times, from Rezina and Calarasi – they grew up about 2 times.

At the same time, incomes from sewerage services grew slower (+ 35%) than expenses (+ 42%) due to the slower expansion of sewerage systems.

Despite the considerable increase of tariffs, the spending on the provision of water services exceeds, on average, 9.5% (4.4 million MDL) of the sales income. In addition, this difference is higher for sewerage services, with 17.3% (4.7 million MDL).

Table 3. Income from sewerage services, million MDL

| Urban localities | Years | | | | | | Growth, % |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Soldanesti | - | - | - | 0,3 | 0,5 | 0,3 | 106 |
| Rezina | 0,7 | 0,8 | 0,9 | 0,9 | 1,0 | 1,0 | 147 |
| Telenesti | 0,7 | 0,8 | 0,8 | 0,9 | 1,0 | 1,0 | 139 |
| Orhei | 6,9 | 7,2 | 8,1 | 8,4 | 8,6 | 9,8 | 141 |
| Criuleni | 1,0 | 1,1 | 1,1 | 1,2 | 1,2 | 1,2 | 125 |
| Anenii Noi | 2,0 | 2,1 | 2,4 | 2,5 | 2,8 | 2,8 | 136 |
| Straseni | 1,9 | 2,0 | 2,1 | 2,2 | 2,3 | 2,4 | 124 |
| Calarasi | 1,5 | 1,5 | 2,2 | 2,3 | 2,4 | 2,3 | 154 |
| Ungheni | 5,2 | 6,3 | 7,2 | 7,0 | 6,8 | 6,8 | 131 |
| Hincesti | 2,5 | 2,4 | 2,8 | 2,9 | 2,8 | 2,7 | 111 |
| CDR | 22,4 | 24,1 | 27,5 | 28,7 | 29,3 | 30,3 | 135 |

Table 4. Expenditure on sewerage services, million MDL

| Urban localities | Years | | | | | | Growth, % |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Soldanesti | - | - | - | 0,9 | 0,5 | 1,1 | 117 |
| Rezina | 0,8 | 0,7 | 0,9 | 0,9 | 1,0 | 1,6 | 192 |
| Telenesti | 0,8 | 0,8 | 0,8 | 1,2 | 1,4 | 2,5 | 305 |
| Orhei | 9,4 | 7,6 | 9,1 | 9,7 | 12,4 | 15,6 | 166 |
| Criuleni | 0,9 | 1,0 | 1,0 | 1,4 | 1,3 | 1,3 | 145 |
| Anenii Noi | 3,7 | 3,8 | 3,8 | 4,3 | 3,7 | 3,6 | 99 |
| Straseni | 1,9 | 1,4 | 1,4 | 2,1 | 2,0 | 1,6 | 82 |
| Calarasi | 1,3 | 1,4 | 2,2 | 2,8 | 2,9 | 2,5 | 186 |
| Ungheni | 6,4 | 6,8 | 7,2 | 7,1 | 7,5 | 6,7 | 105 |
| Hincesti | 2,4 | 2,3 | 2,5 | 2,8 | 2,8 | 3,0 | 124 |
| CDR | 27,7 | 25,9 | 28,9 | 33,1 | 35,6 | 39,3 | 142 |

Structure of expenditures

Overall, the total consumptions and expenditures for water supply and sewerage services, at the "Moldova Apa-Canal" Association of CDR, are 130.2 mln. MDL, including:

- wage payment - 48.2 mln. MDL (37%);
- purchasing of needed materials - 31.1mln. MDL (23.9%);
- long-term assets wearing - 23.7mln. MDL (18.2%);
- medical and social insurance - 13.1mln. MDL (10.1%);

-consumption and expenses related to services rendered by third parties - 14.1 mln. MDL (10.8%).

At the majority enterprises that provides water and sewerage services, the same expenditure structure is observed, with few exceptions. The maximum weight (Figure 3) of long-term assets wearing (54%) is present at the company in Telenesti, due to new entrants of the long-term assets.

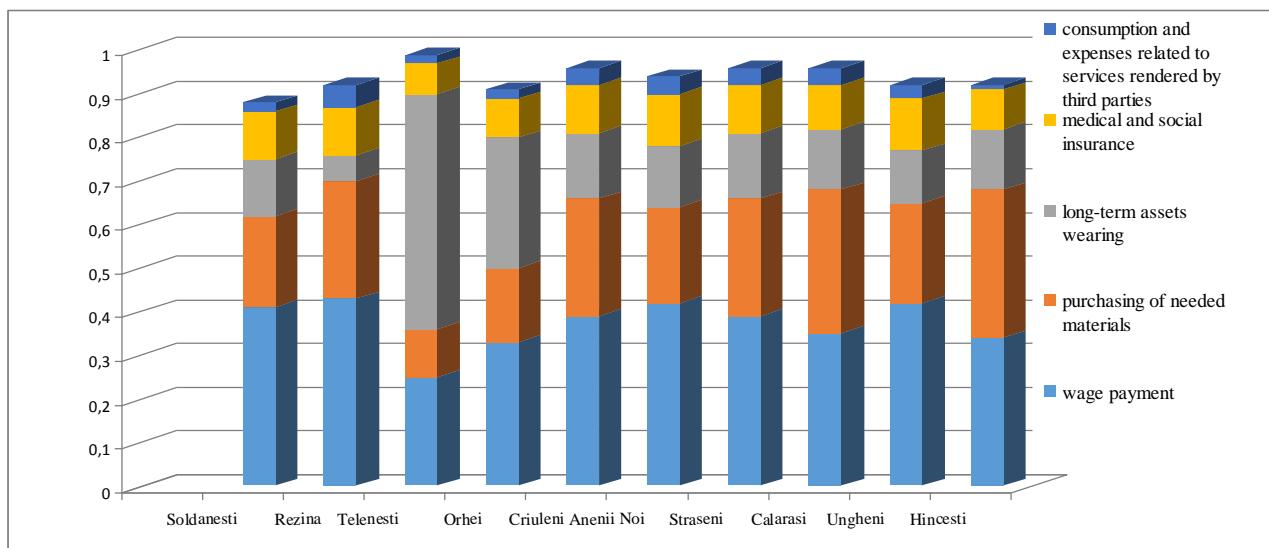


Figure 3 "Structure of expenditures of the enterprises providing water supply and sewerage services from some urban localities of the CDR, for the year 2016" []

3. Analysis of the economic profitability of water supply and sewerage service providers

In the Central Development Region, on average, the general tariffs for the provision of the supply and sewerage services do not exceed those costs. The negative difference between the tariff and the cost of both types of services is maintained, but it tends to decrease.

So, in the provision of the water supply service, this oscillating tendency is present in the localities (Table 5): Straseni, Soldanesti, Orhei and Calarasi. This is due to the significant increase of the tariffs, but also to a slower increase of the prices and production costs.

At the service of sewerage, in 2016, only the enterprise from Straseni has a positive difference between the tariff and the cost. During the analysed period, a negative oscillation is observed in most localities (table no.6). The lowest value is registered at the company from Telenesti.

The positive increase of the difference between the tariff and the cost, for sewerage services for the period 2011-2016, at "Moldova Apa-Canal" enterprises, in the Central Development Region, is registered at three from ten localities: Anenii Noi (+7,4), Straseni (+4.5) and Ungheni (+1.4).

In this context, it is necessary that to increase of difference between tariffs and costs not only for: increasing the profitability of enterprises, improving the quality of water supply and sewerage services, optimizing the price-quality ratio, but also to diminish harmful impact and improving the quality of water resources.

Table 5. The difference between the tariff and the cost of water supply services, MDL / m³

| Urban localities | Years | | | | | | Growth |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Soldanesti | -8,0 | -14,0 | -6,8 | -8,0 | -0,5 | -3,4 | 4,6 |
| Rezina | -0,6 | -1,6 | -0,4 | -4,2 | -5,7 | -14,6 | -14,0 |
| Telenesti | -3,9 | 1,4 | 1,6 | 2,4 | 1,6 | -0,4 | 3,5 |
| Orhei | -1,6 | -0,8 | -1,4 | -3,9 | -5,7 | -4,5 | -2,9 |
| Criuleni | - | - | - | - | - | -1,1 | -1,1 |
| Anenii Noi | -1,1 | -2,4 | 1,6 | 0,0 | -1,1 | -0,9 | 0,1 |
| Straseni | -7,5 | -7,3 | -2,7 | -2,6 | -1,9 | -2,7 | 4,8 |
| Calarasi | -4,1 | -2,6 | 1,7 | -1,2 | -4,4 | -1,2 | 2,9 |
| Ungheni | -1,7 | -0,7 | -0,5 | -0,1 | -1,3 | -1,5 | 0,2 |
| Hincesti | -4,5 | -3,4 | -1,0 | -3,5 | -2,2 | -3,9 | 0,6 |
| CDR | -3,3 | -3,1 | -0,8 | -2,1 | -2,1 | -3,4 | -0,1 |

Table 6. The difference between the tariff and the cost to sewerage services, MDL / m³

| Urban localities | Years | | | | | | Growth |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | |
| Soldanesti | - | - | - | -15,2 | 0,3 | -18,5 | -3,3 |
| Rezina | -1,5 | -0,9 | -0,3 | -3,7 | -6,5 | -20,2 | -18,8 |
| Telenesti | -4,0 | -0,7 | -1,7 | -1,9 | -5,6 | -7,7 | -3,7 |
| Orhei | 1,6 | 0,9 | 1,3 | -3,1 | -0,9 | -0,5 | -2,1 |
| Criuleni | - | - | - | - | - | -3,1 | -3,1 |
| Anenii Noi | -14,1 | -14,8 | -11,6 | -14,8 | -7,7 | -6,7 | 7,4 |
| Straseni | 0,0 | 4,2 | 4,1 | 1,2 | 1,7 | 4,5 | 4,5 |
| Calarasi | 1,2 | 0,8 | 0,3 | -3,3 | -3,3 | -1,2 | -2,4 |
| Ungheni | -1,4 | -0,5 | -0,1 | -0,1 | -0,8 | 0,0 | 1,4 |
| Hincesti | 0,4 | 0,8 | 1,9 | 0,5 | -0,1 | -1,2 | -1,6 |
| CDR | -1,8 | -1,0 | -0,6 | -4,0 | -2,3 | -5,5 | -3,7 |

There is a low economic profitability, especially of the operational assets, because it is negative difference - between tariffs and costs, as well as between the sales income and expenditures, in majority enterprises of "Moldova Apa-Canal" from the Central Development Region. In the years 2011-2016, there is a significant reduction of economic profitability, due to the intensification of inflationary processes and the significant increase of the purchase prices for energy and materials necessary for the provision of water and sanitation services, as well as the non-adjustment of the respective tariffs.

CONCLUSIONS

1. The differences of density and rate of functionality of aqueduct and sewerage systems, between the localities, are more obvious than those at the regional level.
2. Improvements in system infrastructure was possible due to the increasing subsidies from the National Ecological Fund, the State Budget and external sources. Is necessarily that the funds not only help to increase access to centralized and counted water supply services, but these funds should increase access to quality water and help reducing the impact on water of aquatic objects.
3. The low economic profitability is registered in majority enterprises of "Moldova Apa-Canal", from the Central Development Region, because it was registered a negative difference between tariffs and costs, as well as between the sales income and expenditures.

BIBLIOGRAPHY

1. Bacal P., The economic and geographical analysis of water supply and sanitation services in the Danube-Black Sea hydrographic space (the sector of the Republic of Moldova), revista Economica, Year XXV, nr.1 (99), March 2017. 82-102 p. În: ase.md
2. Bejan Iu., Boboc N., Bacal P. et all. Planul de Gestionarea Bazinului Hidrografic Prut. Ciclul I, 2017-2022. Chișinău, 2016. 39-62 p.
3. Capcelea A., Managementul ecologic întranzită economică, Editura Știință, Chișinău, 2013. 421 p.
4. Guidance document no. 1. Economics and the Environment. The Implementation Challenge of the Water Framework Directive. Luxemburg: 2003.
5. Hotărârea ANRE nr. 741 din 18.12.2014 privind „Metodologia de determinare, aprobare și aplicare a tarifelor pentru serviciul public de alimentare cu apă, de canalizare și epurare a apelor uzate. În: Monitorul Oficial nr.33-38 din 13.02.2015.
6. HG nr. 199 din 20.03.2014 cu privire la aprobarea Strategiei de alimentare cu apă și sanitație (2014 – 2028). În: Monitorul Oficial nr. 72-77 din 28.03.2014.
7. HG nr. 301 din 24.04.2014 cuprinderea aprobarea Strategiei de mediu pentru anii 2014-2023 și a Planului de acțiuni pentru implementarea acestieia. În: Monitorul Oficial nr. 104-109 din 06.05.2014
8. HG nr. 1063 din 16.06.2016 cu privire la aprobarea Programului național pentru implementarea Protocolului privind apă și sănătatea în Republica Moldova pentru anii 2016-2025. În Monitorul Oficial nr. 314 din 20.09.2016
9. Indicii financiari și de producție ai activității întreprinderilor de alimentare cu apă și canalizare ale Asociației „Moldova Apă-Canal”. Anii 2011-2016. În: amac.md
10. Rapoartele BNS privind activitatea sistemelor de aprovizionare cu apă și canalizare.
11. Todos I., Teză de doctor în economie „Particularitățile managementului calității serviciilor publice locale de aprovizionare cu apă potabilă și canalizare”, Chișinău, 2009. În: cnaa.acad.md

THE PARTICULARITIES OF WATER CONSUMPTION IN THE CENTER REGION OF DEVELOPMENT OF THE REPUBLIC OF MOLDOVA

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Abstract. This paper includes a study on the use of water resources in the Central Development Region of the Republic of Moldova. This study aims at highlighting and analyzing the particularities of the water consumption in this region, namely with regard to the sources of water capture for consumption as well as its branch structure

Key words: water resources, consumption, branch structure, region.

JEL CLASSIFICATION: Q 25

INTRODUCTION

The water resources are some of the most essential resources for human and economic development in general, because they are fundamental for the vital functions of all living beings, plants, agricultural production, and many industrial processes. The availability of Moldovan water resources depends in particular on the geographical position of the country within the Central and Eastern European climate contact zone. Currently, the national water-supply balance of the Republic of Moldova is adequate in relation to the available resources. This balance is largely due to, the sudden economic decline of Moldova from the recent past. Despite this balance, some regions of the country are facing a water shortage [7].

In the Republic of Moldova, the water for the economical use is extracted so from surface sources, as well as from undergrounds. The main source of the alimentation of Moldova with drinking water is underground water resources, from which is supplying 100 % of the rural population and 30% of the urban population or 65% of the entire population of the country. Both types of water are vulnerable to the climate variability, but surface sources are particularly vulnerable. However, over the past twenty years, economic constraints have had much greater influence on the dynamics of water resources than natural factors.

The Central Region (CR) includes 13 districts from the central part of the Republic of Moldova, which forms the Central Region of Development (CRD), as well as Chisinau city, which forms the homonym development region. In addition, at the CRD are attributed the localities from Dubăsari district, which are located on the left bank of the Dniester river and are subordinated to the official authorities from Chisinau, including the localities Cocieri, Coșnița, Pîrîta, Doroțcaia and Corjova. The total area of the Central Region of Development is 10.6 thousand km² and 1.1 million people. The districts in the central and eastern part of the region lie within the boundaries of the Nistru River and its tributaries, including the Raut River basin - Telenești and Orhei districts, the Bâc River - the Călărași, Strășeni, the Botna River – Ialoveni district. Most of the territory of Ungheni, Nisporeni and Hîncești districts from the western part of the region are located in the Prut river basin. In addition, the eastern part of Hîncești district is situated predominantly within the limits of the Cogâlnic river basin, which flows into the Black Sea basin from the current territory of Ukraine.

MATERIALS AND METHODS

To realising this study, were used the methods: analysis and synthesis, comparative, statistical - mathematics and graphics. Using the method of analysis and synthesis, allowed the evaluation of the consumption of water resources in the Center Region of Development, as well as the branch structure of the use of water and the economic branches that have the greatest contribution to this consumption. By the statistical-mathematical method were processed data on water consumption which were rendered by the graphical method, what allowed getting a clear image for analysis. The comparative method was used to highlight both the districts and the economic branches that consume the largest volume of water and the smallest one, also by this method was analyzed the ratio of the sources of water capture in each district of CRD.

The main sources of this research were: Generalized Annual Reports on Water Management Indicators in the Republic of Moldova. Basin Directorate of the "Apele Moldovei" Agency, Annual Reports on the Quality of Environmental Factors and the Activity of Ecological Agencies and Inspections, Statistical Yearbook of the Republic of Moldova 2016. Also, at the basis of this study there were some complex works in which the problem of water resource management was reflected: Bacal P. [2], Baloiu V. [3], Șerban P. [11].

RESULTS AND DISCUSSIONS

1. Consumption of water resources in the Center Region of Development

In the Center Region of Development, the water supply of localities is performed from the following main points of the Prut River: 4 main points in Ungheni, Nisporeni (Groze ști - under construction) and Hînce ști (Cotul Morii - under construction), designed to supply water to localities in those districts. The Dniester River serves as the main source of water for the population of Rezina district as well as of industrial factories nearby. Simultaneously, the point of Vadul lui Vodă, designed to provide water for Chisinau municipality, has possibilities for expansion to neighboring districts, for example, Strășeni and Călărași. This possibility is an advantage for the qualitative water supply of these districts. The Dniester and Prut rivers can also be used as a source for increasing irrigated agricultural land by applying state-of-the-art technologies.

The main groundwater reserves explored and approved for the Center Region are about 1,047,200 (m³ / day), representing 66% of the groundwater sources in the Republic and about 70% of the total groundwater reserves approved in the three regions. The production capacity is sufficient to cover the current need of 23,000 m³ / day and the forecast for the future need of 63,000 m³ / day (2020) of the Center Region and can be considered in the water resource planning process [10].

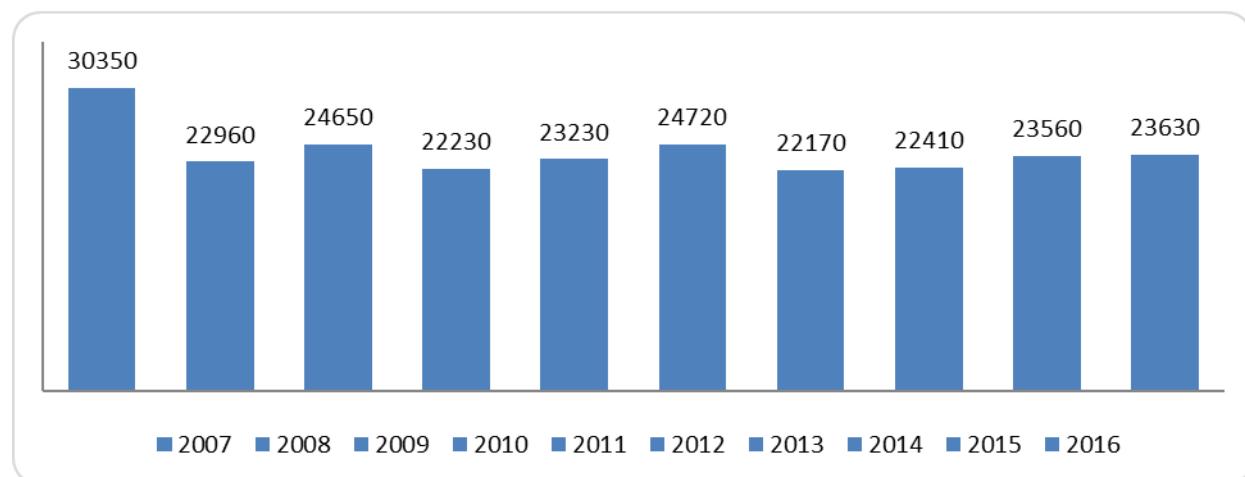


Figure 1. Dynamics of water consumption in the Center Region of Development during the years 2007 -2016 (thousand m³)

Source: Data processed by the author according to the source [5]

Analyzing the evolution of water consumption in the CRD, we can see that the largest volume of water was used in 2007 (about 30.3 million m³) when Moldova was hit by a disastrous drought that affected 80% of the country's land. In 2012 there was another drought that affected almost all Moldova, which caused the increase of water consumption. This demonstrates the direct influence of weather conditions on water consumption, which is a primary factor determining the amount of water used each year. Even after 2012, the volume of water captured decreases despite the fact that droughts have been recorded, which means that there has been a considerable economic decline in the Republic of Moldova in the last period.

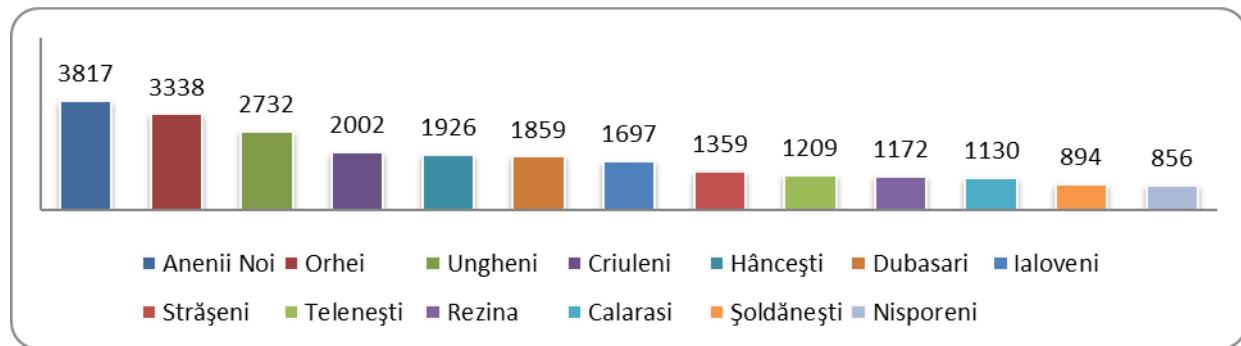


Figure 2. The amount of water used in the Center Region of Development at district level in 2016 (thousand m³)

Source: Data processed by the author according to the source [5]

Analyzing the water consumption at district level in 2016, we can point out that the districts of Anenii Noi, Orhei, Ungheni (Figure 2) use a significantly higher amount than other districts. This is largely conditioned by the bigger number of population of these districts. In Dubasari district this principle is not valid, although it has the lowest number of population (29.3 thousand), in the year 2016 it consumed approximately 1.9 million m³ of water, which is conditioned by the irrigation sectors in the district as well as the presence of several bases of agreement and a canning factories.

The access to water is a critical element of economic growth and poverty reduction. Also, the access to drinking water and sanitation is a fundamental pillar for improving the standard of living and well-being of the population. The state of the existing infrastructure varies considerably from urban to rural areas. The water supply is mainly made from the underground water catchments in the localities of the region. The water quality does not meet the sanitary standards for drinking water, so water can only be used as technical water in many. The density of the aqueduct networks in the CRD is 25.8 km / 100 km²; it ranks second after the SRD, which has a density of 31.3 km / 100 km², and is lower than the national average of 29.3 km / 100 km² [9]. While more citizens have gained improved access to drinking water supplies over the last few years, reducing the gap between access to urban and rural drinking water remains a challenge for the country. Only 64% of the dwellings were connected to public water supply networks in 2015, the gap between access to urban and rural drinking water being essential: 90% of dwellings connected to urban space compared to only 43.2% in rural areas

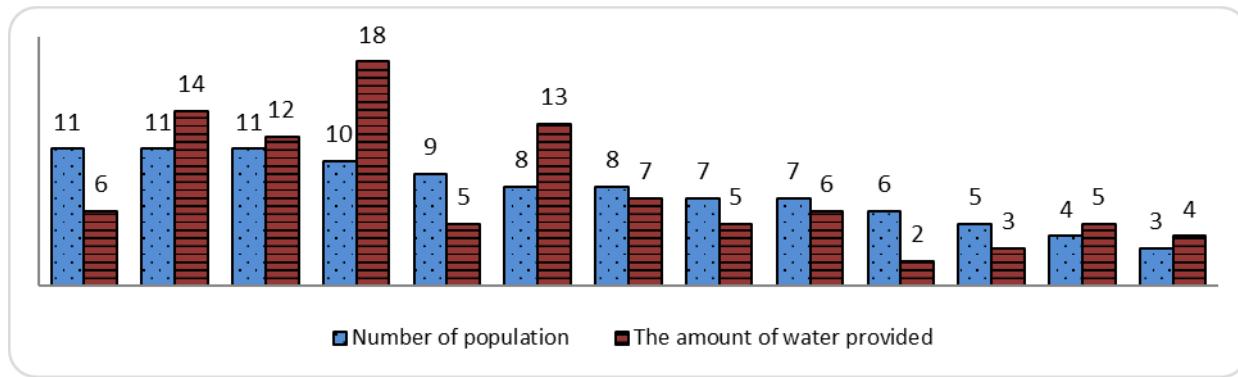


Figure 3. The ratio between the population of the districts CRD and the quantity of water supplied to the population in 2016 (%)

Source: Data processed by the author according to sources [1], [7]

The CRD districts differ in the number of inhabitants, area and development, and all of these factors directly affect water consumption. Analyzing the figure above, there is a clear disagreement between the number of inhabitants and the quantity of water supplied, which indicates that in some localities the centralized water supply system is missing or partially present. The worst situation is in the Hîncesti, Strășeni and Nisporeni raions. Unlike the aforementioned districts, in the districts of Ialoveni, Anenii Noi and Orhei, the percentage of the supplied water quantity exceeds the percentage of the number of inhabitants in these districts.

2.1. Sources of capture of water for consumption

At the level of the republic the sources from which the water is consumed, the largest amount of water is captured from surface sources, being about 87% of the total water volume captured. This impressive volume of water captured from surface sources is conditioned by UTA SN, which consumes about 604 million cubic meters of water, representing about 78% of the total volume of water used captured from surface sources in the Republic of Moldova.

At the level of the regions of development, the situation is different, with the largest amount of water used being taken from underground sources, accounting for about 62% of the total volume. In the Center Region of Development, as well as in the other regions, most of the volume of water used is captured from underground sources (Figure 4).

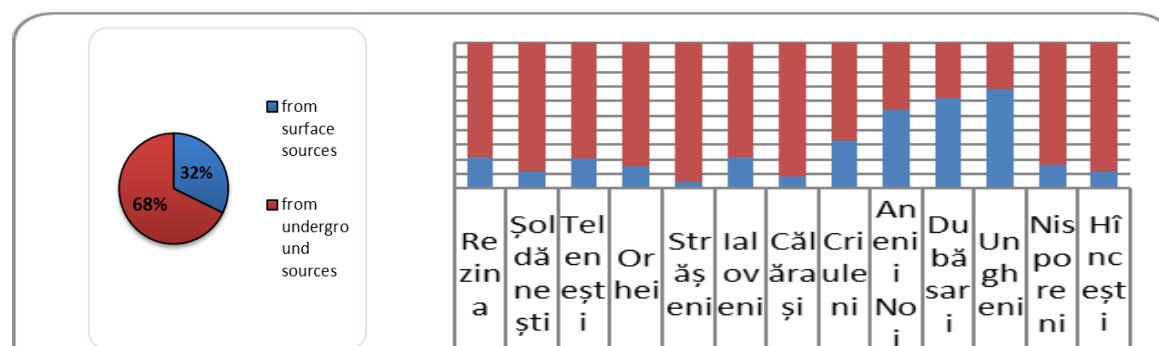


Figure 4, 5. Sources of water capturing for consumption in the Center Region of Development (average 2007 - 2016)

Source: Data processed by the author according to the source [5]

Although, as a whole, in the CRD 68% of the total water used is captured from underground resources, some districts are exceptions. In the Ungheni district, on average, a volume of water of about 1, 9 mln m³ of surface water sources is captured for consumption (Figure 5), being about 68% of the total volume, this being conditioned by the fact that this district is located in the immediate vicinity of the Prut River, the same situation being in the Dubăsari district, which is

located near the river Nistru, where about 62% of the water used is captured from superficial sources.

2.2. The branch structure of the water consumption

The analysis of the branch structure of water consumption allows to highlight the economic directions that have the greatest attribution to this consumption, which facilitates the proper monitoring and management of the water resources. During the years 2007-2016 the branch structure of water consumption in the Center Region of Development did not vary considerably, expressing stability (Figure 6). During this period there was a substantial decrease in water consumption for agriculture (4%), although in recent years it has a slight trend of growth. Unlike agriculture, the amount of water consumed during this period has increased, this being conditioned by the connection of several households to the centralized water supply systems.

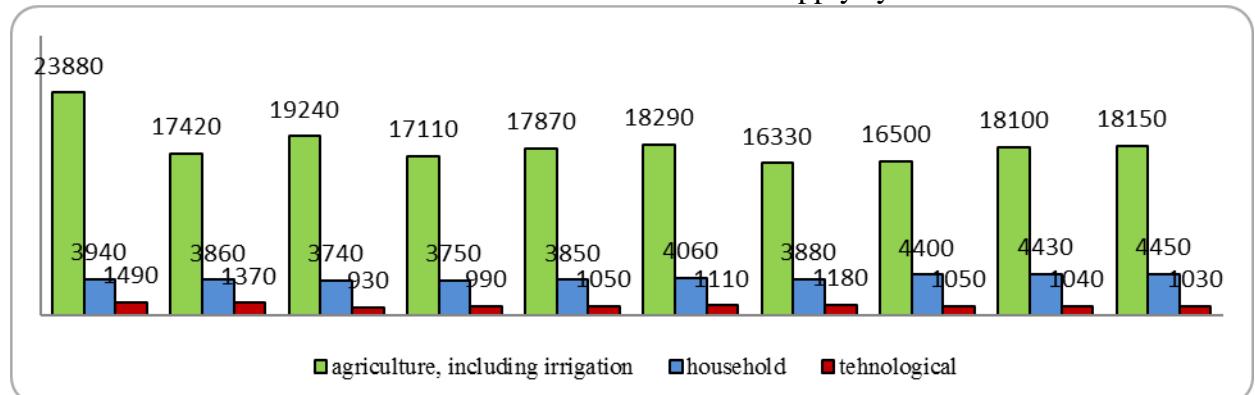


Figure 6. Dynamics of water resource consumption in the Center Region of Development by category of use

Source: Data processed by the author according to the source [5]

In the Center Region of Development, on average, a quantity of water of about 23.5 mln m³ (Figure 6) is used, with the largest amount of water being used in agriculture and irrigation (18.8 mln m³), followed by water used for domestic needs (4 mln m³). The smallest quantity of water is used for technological purposes (5% of the total volume), so we can deduce the level of economic development much lower than the North Region of Development, for example, where almost 13% is used for technological purposes of the total volume of water.

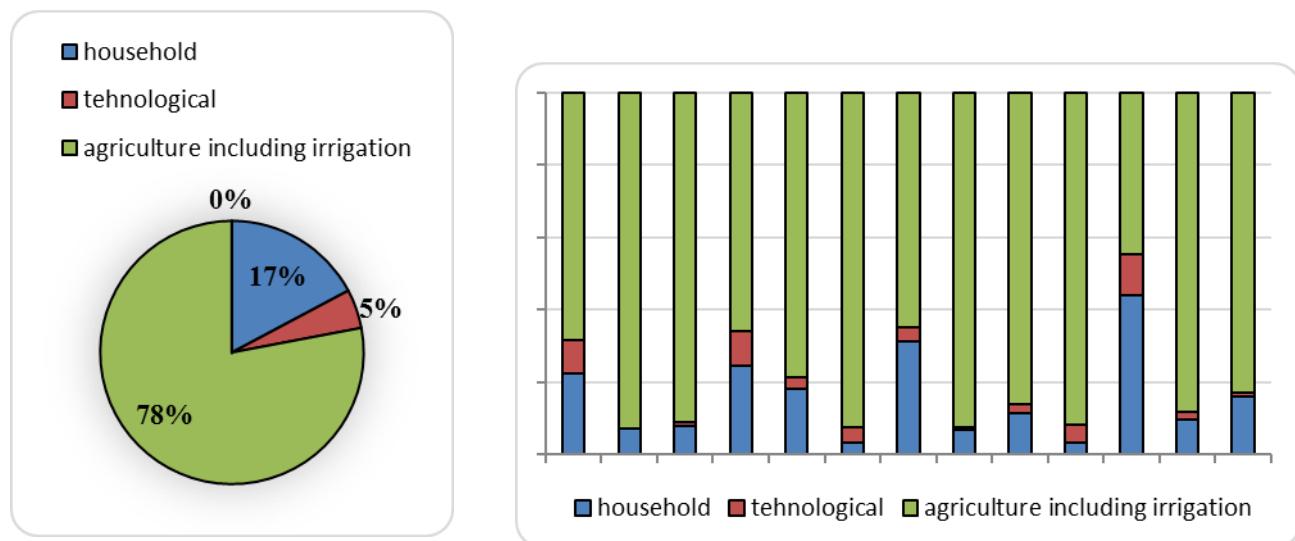


Figura 6, 7. The branch structure of water consumption in the Center Development Region (average 2007 - 2016)

Source: Data processed by the author according to the source [5]

The branch structure of the consumption of water resources in the CRD differs from one district to another due to several factors: the population number, the economic development of the district, the

area, etc. In most districts, as well as in the region in general, agriculture predominates as a major consumer of water resources (Figure 7), the largest percentage of water used in agriculture is in Soldanesti district (81%), and quantitatively, from all over the region , in the Orhei district (1.7 mln m³). The second position is irrigation (23%). The largest quantity of water used for irrigation is observed in Dubasari (1,5 mln m³) and Anenii Noi (1,2 mln m³). As regards the volume of water used for domestic purposes, this is most pronounced in the Ungheni and Călărași districts. For technological purposes most of the water is used in the Orhei district (319 thousand m³), Ungheni (312 thousand m³) and Rezina (105 thousand m³). Although, in a fairly small percentage, water is used in all districts for technological purposes, only in the district of Șoldănești it is missing.

In the Center Region of Development, the largest consumers of water for production are: wine factories from Ialoveni district (68.6 thousand m³), including Bardar Winery (18.3 thousand m³), Cascad Vin from Ialoveni (13.8 thousand m³), Asconi from Puhoi (13.2 thousand m³) and Milestii Mici (9 thousand m³), Straseni district (34 thousand m³), including Romanești SA (25 thousand m³), Orhei rayon (31 thousand m³) Chateau Vartely from Orhei (9.2 thousand m³), Anenii Noi district (31 thousand m³), including SA Agrovin Bulboaca (23 thousand m³) and Calarasi district (16.5 thousand m³), including Calarasi Divin SA (14 thousand m³) poultry farms near Balti, including Banestii Vechi (14 thousand m³) and Sarateni Vechi, Telenești district; pig farms, including Pukoven SRL from Roscani (156 thousand m³) and Chin Funny Chirca (24.3 thousand m³), both from Anenii Noi, LLC, Porco Bello from Cimișeni; meat processing centers in the Ialoveni districts (26 thousand m³) and Criuleni; the canning factories in Coșnita, Dubăsari (73 thousand m³), Anenii Noi (30 thousand m³) and Călărași (5.7 thousand m³); large agricultural enterprises in the districts of Criuleni, Anenii Noi and Dubasari; Lafarge cement factory in Rezina (130 thousand m³), quarries in Cobușca, Anenii Noi district (26 thousand m³) and in Micăuți, Strășeni district (4 thousand m³). [6]

CONCLUSIONS

The main source of water supply of the Republic of Moldova is the hydrographic basin of the Nistru river, which consumes on average 81% of the total volume of water consumed in all hydrographic basins, this basin having a basic role also in the water supply of the Center Development.

The Center Region of Development consumes an average of 24 million cubic meters of water, ranging from one district to another, depending on the number of population, surface and economic development. Of the all 13 districts of the CRD, the Anenii Noi (3.8 million m³), Orhei (3.3 million m³) and Ungheni (2.7 million m³) districts use the largest volume of water.

With regard to the sources of water abstraction for consumption, most of the localities use groundwater (68%), except the Ungheni, Dubasari and Anenii Noi districts, where more than 60% of the waters used are captured from superficial sources, it is largely conditioned by the partial location of these districts near major rivers.

The branch structure of water use differs from one district to another, but in general agriculture (55%) and irrigation (23%) predominate as a major consumer of water resources. On the third position is the volume of water used for domestic purposes (17%). The fact that the smallest quantity of water is used for technological purposes (5%) shows the weakness of the economy.

BIBLIOGRAPHY:

1. Anuarul Statistic al Republicii Moldova 2016 În: statistica.md
2. BACAL P. *Gestiunea protecției mediului înconjurător în Republica Moldova (Aspecte teoretice și aplicative)*. Chișinău: Ed. ASEM, 2010, 240 p.
3. BALOIU V. *Gospodărirea apelor, Editura didactică și pedagogică*. București, 1971, 236 p.
4. BEJAN IU., NEDEALCOV N., BOBOC N., BACAL P. et all. (2017). *Planul de Gestionare a Districtului Bazinului Hidrografic Dunărea-Prut și Marea Neagră*. Ciclul I, 2017-2022. Chișinău. 150 p.
5. Direcția bazinieră a Agenției „Apele Moldovei” Raportul anual (2016) generalizat privind Indicii de gospodărire a apelor în Republica Moldova.
6. Rapoartele anuale (2016) privind calitatea factorilor de mediu și activitatea Agențiilor și Inspecțiilor Ecologice.

7. Indicii financiari și de producție ai activității întreprinderilor de alimentare cu apă și de canalizare ale Asociației „Moldova Apă-Canal”. Anul 2016. [In: amac.md](#)
8. Raportul Național de Dezvoltare Umană în Moldova 2009-2010. În: <http://www.md.undp.org>
9. Raportul Național de Dezvoltare Umană în Moldova 2015-2016. În: <http://www.md.undp.org>
10. Strategia de Dezvoltare Regională Centru (2016-2020). În: [adr.centru.md](#)
11. ȘERBAN P. *Galie A Managementul apelor. Principii și reglementări europene*. București: Tipored, 2006, 284p.
12. <http://apelemoldovei.gov.md/pageview.php?l=ro&idc=134&id=187>

APPROACES REGARDING THE METHODOLOGY OF FINANCIAL ASSETS ACCOUNTING

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Abstract. Along the centuries, the role and value of financial assets in the economic activity of entities has increased. For these reasons, the research is up-to-date in the field of their accounting and financial reporting in order to optimize and make appropriate the information obtained for decision-making. The research methods used are: examining the existing practice and comparing the accounting provisions of the RM, IFRS and the EU. In this paper, the existing problems will be highlighted, as well as solutions for them, accounting models and reporting of financial assets.

Keywords: financial assets, accounting, assessment, financial instruments, investments, financial reporting, recognition.

JEL CLASSIFICATION: M 41

THE CONTENT OF THE WORK

According to International Financial Reporting Standards (IFRS), financial resources are a component of financial instruments, together with financial liabilities, called "*financial asset*" [5]. The EU Directive 2013/34/EU also deals with this accounting element [3]. Only National Accounting Standards (NAS) apply the notion of "financial investment" [2], which is narrower than "financial assets".

The financial asset is a contractual right to obtain another financial asset from its use, such as securities, shareholdings, deposits, loans granted and others. But according to NAS "Claims and financial investments", financial investments are assets in the form of securities, shareholdings in the share capital of other entities and other investments held by the entity for the purpose of exercising control, obtaining income or other economic benefits [1].

IAS 32 "Financial Investment: Presentation and Description" defines the following: "A financial instrument is any contract that simultaneously generates a financial asset for an enterprise and a financial liability or an equity instrument for another enterprise. More simply, financial instruments can be regarded as cash flows with certain risks, depending on the predictability of these flows "[5].

IAS 39 "Financial Instruments: Recognition and Assessment" provides that the financial asset is generated by a financial instruments contract for an enterprise.

It also specifies that *derivatives* (options, forward contracts, futures contracts, swaps) are part of financial instruments and it is provided that they must have the following characteristics:

- its value changes in response to changes of certain interest rates, the price of a financial instrument, the price of the goods, the exchange rates, the price or rate indices, the credit rating or credit index or other variables, provided that, in the case of a non-financial variable, it is not specific to a contractual party (sometimes called "support");

- it does not require any initial net investment or requires a net initial investment which is less than would be required for other types of contracts that are expected to have similar effects to changes of market factors;

- it is settled at a future date [6].

Based on the above, we conclude that the notion of "financial asset" which is more correct is that one used by IFRS, when the notion of "financial investments" used by NCS signifies not the essence of the asset, but the process. Only the entity first invests in cash or other goods and then, after assessing the cost of the investment, recognizes the asset, which in this case is financial. But according to the NCS, on the balance sheet is recorded only the process fact that contradicts the

conceptual framework for financial reporting, which provides the asset as a basic element of the financial situations [4].

So, among the issues related to financial assets, more attention should be paid to their characteristics in order to properly perform the recognition procedure and the approach of their assessment [11].

In general, however, financial assets are recognized, like other assets, on the basis of *accrual accounting*, if the following conditions are met:

- there is a well-founded certainty that the entity will obtain future economic benefits as a result of the ownership of the financial assets;
- the value of financial assets can be assessed reliably.

The financial assets such as securities or participations are recorded at the time of their acquisition, according to the legislation in force, and long-term loans are recorded at the time the claim is established.

To properly record in accounting and financial reporting, it is important to rationally apply the procedure for assessing financial assets, which is carried out in two ways: initial and further assessment.

The initial assessment, which occurs at the time of purchase, is made on the basis of the cost of acquiring financial asset, including all transaction costs generated by its acquisition, as well as commissions, fees and taxes. However, the assessment conditions at sale/purchase are determined by the contract of acquiring them.

The further assessment of financial assets is required for several reasons. First, a financial asset can be included among the assets of an investor. Therefore, in determining the total value of the assets held by the investor, the value of his assets should be determined. If the investor wishes to sell his stake, as well as in case of his inheritance, it is necessary to determine its value for establishing the related tax or to take a court decision. It is also necessary to assess the value of the financial asset if it is passed as an input into the entity's capital.

The assessment of financial assets is regulated by the provisions of IFRS 9 "Financial instruments": at initial recognition - at fair value, and further evaluation - at amortized cost or fair value [8].

The amount of financial assets amortization can be calculated using the effective interest rate method which coincides with the cash flow update rate, which is expected, in the future, until the moment of extinction or change of the remaining net value of the financial asset, taking into account market conditions.

The mentioned standard recommends the assessment of financial assets by category (leading to cash flows by or without principal and interest payments). Thus, the financial assets can be recognized as investments in debt instruments and investments in equity instruments.

Investments in debt instruments are assessed at the cost of amortization or fair value and the changes occurring are the entity's profit or loss. For the reason that the investments in equity instruments do not lead to the occurrence of cash flows, they are assessed at fair value.

When assessing financial assets as shares held in other entities, it is important to pay attention to the quota occupied.

If the investor owns less than 20% of the total shares of another company, then the investments are assessed at cost, which includes all the costs of purchasing these securities. If the market price of these investments is lower than their cost, then the lower estimation rule is applied, if the investments are assessed at market price.

If the investor holds between 20 and 50% of the shares of another company, then he can exert a huge influence on this company (participates in making decisions on the activity of the entity in question, may be a member of the board of directors of the company), but is not entitled to get involved in its work. In this situation, the valuation of the investments is done through the participation method, which means that the investments are included in the balance sheet at their cost; the volume of investments increases with the respective part of the investor in the company's

income - the object of the investment (or decreases with the part in the expenses of this company); when the investor obtains dividends, the investments diminish with the amount of these dividends.

If the investor owns more than 50% of the shares of another company, he holds the control equity stake and can control the company's activity (makes decisions on its financial and economic activity). Therefore, in this situation the acquired company becomes a branch (daughter) of the investor company (mother). The investments assessment is carried out using the consolidation method, which provides that the assets and liabilities of both companies are included in the consolidated balance sheet and their financial results – in the profit situation and consolidated loss.

A problem is also highlighting the accounting accounts for accounting the financial assets. In the General Accounts Plan the following Tier 1 accounts are provided, for:

- long-term financial investments: 141 "Long-term financial investment in unrelated parties", 142 "Long-term financial investments in affiliated parties";

- current financial investments: 251 "Current financial investments in non-affiliated parties", 252 "Current financial investments in related parties". In the sub-accounts opened in each of these accounts, the types of financial investments are simultaneously reflected [9].

Consequently, according to the chart of accounts, financial investments are classified according to two criteria:

- the term of ownership;
- affiliation of financial investments.

We note that the chart of accounts does not expressly provide an account specifically for financial assets. For this reason, we propose the introduction of such an account called "Financial assets". In order to properly record the shares held in affiliated entities, it must be taken into account that the time of subscription of a company to the formation or increase of the capital of another entity differs from the actual payment of the subscribed capital or purchased securities, may be partially or fully paid at a certain term.

Example. An entity X purchased 800 shares of the capital of another entity Y in the amount of 44 000 lei, which represents 30% of the share capital of the entity concerned and represents an investment in the affiliated entity. At the end of 201N, entity Y recorded a profit of 30 000 lei and paid dividends in the amount of 18 000 lei, and at the end of 201N + 1 the loss of 6 000 lei was recorded.

Table 1. The accounting records relating to operations with shares

| Content of operation | Correspondence of accounts | | Amount, lei |
|--|--|---|------------------------|
| | Debit | Credit | |
| • Recognition of the input value of the investment | 141 "Long-term financial investments in unrelated parties" | 242 "Current accounts in national currency" | 44 000 |
| • Profit reflection according to the investor's share (year 201N) | "Changing the value of long-term investments" | 621 "Incomes from operations with fixed assets" | 9 000 |
| • Receiving dividends | 242 "Current accounts in national currency" | "Changing the value of long-term investments" | 5 400 |
| • Loss reflection according to the investor's share (in year 201N+1) | 721 "Fixed assets expenses" | "Changing the value of long-term investments" | 1800 |

Source: elaborated by the author

Thus, we propose the opening of a new account "Changing the value of long-term investments", which is necessary under the conditions of the financial market.

When accounting for other non-current securities, it should be taken into account that they are held for a long period in order to obtain financial income (dividends or interest).

It is also necessary to determine the type of investment. As mentioned above, a strategic investment is considered to be a 10-20% stake in an entity's average capital.

Example. An entity has contributed to the capital of another entity a means of transport with an entry value of 400 000 lei, cumulative depreciation is 285 000 lei, the value of the contribution is 115 000 lei, which represents 18% of the share capital of the entity.

Table 2. Accounting records for participation in the capital of another entity

| Content of operation | Correspondence of accounts | | Amount, lei |
|--|--|---|-------------|
| | Debit | Credit | |
| • Removing the means of transport from management | 7212 "The accounting value and expenditures related to outgoing tangible fixed assets" | 123 "Fixed assets" | 115 000 |
| • Reflection of the cumulative amortization value of the fixed asset to another entity | 124 "Amortization of fixed assets" | 123 "Fixed assets" | 285 000 |
| • Recording the receivables and incomes of the means of transport transmitted as input | 2341 "Receivables related to the outgoing fixed assets" | 6212 "Incomes from outgoing tangible fixed assets" | 115 000 |
| • Recording of fixed titles at the value of the input | 2515 "Other current financial investments" | 2341 "Receivables related to the outgoing fixed assets" | 115 000 |

Source: elaborated by the author

In financial asset operations, we also need to address receivables having a financial effect as part of them.

Receivables having a financial effect are financial investments such as loans granted, amounts owed by branches, receivables related to financial leasing contracts, interests related to financial receivables and others.

For accounting receivables with a financial effect, a new asset account with that name is required. This account will be debited with third-party loan accounts, including equity-linked loans, with interest on loans granted, guarantees lodged with suppliers and exchange rate fluctuations favorable to loans granted.

The account "Receivables with a financial effect" will be credited with loan accounts and received interests, with unfavorable currency fluctuations related to the loans granted or to the value of losses from financial receivables. Also, for proper recording of financial incomes it is necessary to open a special account - "Financial incomes", with sub-accounts for concrete incomes (dividends, interests and royalty) [10].

Example. On 01.03.201N, entity X granted a loan of 50 000 lei to entity Y for a period of 2 years, with an annual interest rate of 15%, with maturity at 31.12.201N + 1. The interest and the loan will be cashed at the maturity date.

Table 3. Accounting records of receivables with financial effect

| Content of operation | Correspondence of accounts | | Amount, lei |
|--|---|---|--------------------|
| | Debit | Credit | |
| • Granting the loan | "Receivables with a financial effect" | 242 "Current accounts in national currency" | 50 000 |
| • Interest calculation for year 201N: 50 000 lei x 15%: 12 months x 10 months | "Receivables with a financial effect" | 622 "Financial incomes" | 6 250 |
| • Interest calculation for year 201N+1: 50 000 lei x 15% | "Receivables with a financial effect" | 622 "Financial incomes" | 7 500 |
| • Cashing of the interest and the granted loan 50 000 lei + 6 250 lei + 7 500 lei | 242 "Current accounts in national currency" | "Receivables with a financial effect" | 63 750 |

Source: elaborated by the author

Like the other assets of the entity, the outgoing of the securities occurs after the sale, expiration, free of charge transference or other circumstances and is settled at book value which is determined on each separate title or groups of securities with the same issuer. The securities that have the same issuer and which have been recorded in accounting at different incoming data and costs, at outgoing are assessed according to accounting policies, by the weighted average cost method or the FIFO method (first in - first out).

The book value of the outgoing securities is accounted for as an increase of current expenses and a decrease of financial investments, and the incomes from the outgoing of securities are accounted for as a simultaneous increase of cash, receivables and current incomes.

Example. Entity X sold 800 shares to a branch, the cost of a share being 15 lei per unit. Initially, the amount of 11 000 lei was cashed and the difference will be paid within 60 calendar days.

According to the contract:

- the amount with immediate payment - 19 000 lei, excluding VAT;
- the amount with deferred payment - 24 700 lei, excluding VAT (30% interest).

In order to reflect these operations, the "Shares" and "Receivables with financial effect" accounts will be used.

Table 4. Accounting records related to the sale of the entity's shares

| Content of operation | Correspondence of accounts | | Amount, lei |
|--|---|--|--------------------|
| | Debit | Credit | |
| • Settlement of the actual cost of the sold shares: 800 shares x 15 lei | 7215 „Book value and expenditures related to other outgoing fixed assets” | „Shares” | 12 000 |
| • Recognition of current period incomes | "Receivables with financial effect" | 6215 „Incomes from outgoing of other fixed assets” | 11 000 |
| • VAT calculated on the value of sold shares: 11000 lei x 20% | "Receivables with financial effect" | 5344 "Debts on VAT" | 2 200 |
| • Cashing the sale value of the shares, including VAT | 2422 "Related Accounts Cash" | "Receivables with financial effect" | 13 200 |

| | | | |
|---|--|---|--------------|
| • Early incomes recognition: $(19000 \text{ lei} - 11000 \text{ lei}) \times 30\%$ | "Receivables with financial effect" | 5352 "Other current anticipated incomes" 5344 "Debts on VAT" | 2 400 480 |
| • Changing anticipated incomes to the current management period | 5352 "Other current anticipated incomes" | 622 „Financial incomes” | 2 400 |
| • Cashing money: 2400 lei + 480 lei | 2422 "Related Accounts Cash" | "Receivables with financial effect" | 2 880 |
| • Extinction of the VAT budget debt: 2200 lei + 480 lei | 5344 "Debts on VAT" | 242 "Current accounts in national currency" | 2 680 |

Source: elaborated by the author

Given that the financial statements are intended to present useful information in making economic decisions for a wide range of users, they must necessarily include data on financial assets.

According to the NSA "Presentation of Financial Statements", the entity's financial reporting reflects the following information: the book value of each investment group at the beginning and at the end of the reporting period; the difference between the cost of entry and the nominal value of the debts settled in current expenditure or income; the difference between the cost of entry (book value) and the fair value of securities quoted on the financial market, settled in current expenses or incomes; the amount of investment incomes in the form of interest, dividends, etc.; the current share of long-term financial investments; the amount of reclassified financial investments from current financial investments in long-term financial investments [2].

In our opinion, this information is insufficient for users because here is not reflected decipherable the value of types of financial assets, depending on how they are assessed, interest rate, deadlines for investment in debt instruments, and so on.

CONCLUSIONS.

The development of advanced financial markets is leading increasingly to acceleration of investment process, which has become part of the modern economy. A significant place in the patrimony of entities, especially corporations, is now occupied by financial assets.

The NSC "Receivables and Financial Investments" provides for the rules for recognizing, assessing and presenting information about financial assets, but actually does not contain any direct provisions for financial assets, those being generalized in financial investments compared to IFRS that address this issue profoundly and more detailed. At the reporting date, entities need to be guided by the investment valuation algorithm: in debt instruments - at amortized cost, and in equity instruments - at fair value.

The General Accounts Plan does not provide a specific account for financial assets. These are accounted for as financial investments. For this reason, we consider that some accounts and sub-accounts formulated according to the requirements for the presentation of the information concerning the financial assets (separately for each category) should be introduced.

For a wider presentation of information related to the entity's financial assets, we recommend to make an annex to the Balance sheet containing detailed data that would meet the requirements of all users.

BIBLIOGRAPHY:

1. SNC „Creație și investiții financiare”. Standardele Naționale de Contabilitate, aprobate prin Ordinul Ministerului Finanțelor nr.118 din 06.08.2013, [online], Disponibil la: <http://www.mf.gov.md>
2. SNC „Prezentarea situațiilor financiare”. Standardele Naționale de Contabilitate, aprobate prin Ordinul Ministerului Finanțelor nr.118 din 06.08.2013, [online], Disponibil la: <http://www.mf.gov.md/>

3. IAS 32 „Instrumente financiare: prezentare”. Standardele Internaționale de Raportare Financiară (IFRS), [online], Disponibil la: <http://www.mf.gov.md>
4. IFRS 7 „Instrumente financiare: informații de furnizat”. Standardele Internaționale de Raportare Financiară (IFRS), [online], Disponibil la: <http://www.mf.gov.md/>
5. IFRS 9 „Instrumente financiare”. Standardele Internaționale de Raportare Financiară (IFRS), [online], Disponibil la: <http://www.mf.gov.md>
6. Directive 2013/34/EU of the European Parliament and of Council of 26 June 2013 on the financial statements, consolidated financial statements and related reports of certain types of undertakings, [online], Disponibil la: <http://eur-lex.europa.eu>
7. Cadrul conceptual pentru raportarea financiară. [online], Disponibil la: <http://www.mf.gov.md>
8. Planul general de conturi contabile, aprobat prin Ordinul Ministerului Finanțelor nr.119 din 06.08.2013, [online], Disponibil la: <http://www.mf.gov.md>
9. Țurcanu, V. și Golocialova, I. Raportarea financiară conform standardelor internaționale, Chișinău: ACAP, 2015, 452 p.
10. Țurcanu, V și Golocialova, I. Aspecte metodologice și aplicative privind contabilitatea activelor financiare. In: Analele Academiei de Studii Economice a Moldovei. Chișinău, 2014, p. 185-197.

CONSIDERATIONS RELATED TO ACCOUNTING OF ELECTRONIC COMMERCE

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Abstract. At the moment, there are a lot of problems that have arisen in connection with the development of new forms of commerce and the emergence of commercial units whose commercial activity is fundamentally different from the traditional commercial activity practiced by the vast majority of domestic commercial entities. The importance and timeliness of the studied topic lies in the fact that the trade is a major branch of the world economy in general and of the national economy of the Republic of Moldova in particular. The same time, a new form of trade - e-commerce that is growing in volume, ensures retailers and domestic producers to penetrate foreign markets easier, faster and more efficient, and the accounting side of e-commerce transactions have to be developed. The main purpose is to develop the theoretical base regarding the particularities of accounting of e-commerce transactions. The article includes complex scientific and methodological materials related to all aspects of the particularities of accounting in trade entities which practice in addition to traditional forms of trade, new commercial activities such as e-commerce, involving scientific research methods such as: observation, classification, inductive and deductive reasoning, analysis, synthesis, documentation and recording. Among the most relevant obtained results there can be mentioned: the development of the theoretical and practical basis regarding the accounting of the economic operations related to the use of modern payment methods and the identification of the fiscal aspects related to the e-commerce transactions.

Key words: accounting, e-commerce, trade, payment, record

JEL CLASSIFICATION: M41

INTRODUCTION.

The importance and timeliness of the studied topic lies in the fact that the trade is a major branch of the world economy in general and of the national economy of the Republic of Moldova in particular, and the trade entities are indispensable links through which it is realized. With the independence, the Republic of Moldova, as a sovereign and independent state, has substantially expanded its trading partners, which has resulted in quantitative and qualitative changes in the structure, forms and other aspects of the country's commercial activity. The liberalization of the private initiative in business, the limitation of state involvement in the economy, as well as the privatization process have generated impressive metamorphoses that have cardinally changed the whole chain of the movement of goods from the producer to the final consumer.

At present, the Moldovan trade entities still have important reserves in the field of correct revenue determination and expenditure adjustment, as well as in the field of elaboration and implementation of an efficient management control system, which places these issues in the sight of the management of commercial companies as well as in the sight of researchers and specialists in the field. The examination of the particularities of accounting and management control in trading entities is often the starting point in the decision-making process which is of major importance for the activity of the commercial units and serves as a point of reference when developing and implementing the development strategies on medium and long term.

Although the issues related to the accounting system in commercial entities concentrates a whole range of specialized works, there are still loopholes related to the examination of the particularities of accounting and management control system in commercial entities that operate in addition to traditional forms of trade, new commercial activities such as e-commerce, a new type of commercial activity that record larger and larger volumes, and which ensure the opportunity, for local traders and producers, to enter more easily, faster and more efficiently foreign markets.

At the moment, there are a lot of problems that have arisen in connection with the development of new forms of commerce and the emergence of commercial units whose commercial activity is fundamentally different from the traditional commercial activity practiced by the vast

majority of domestic commercial entities. We are all witnessing the accelerated development of information technologies, the development of which has resulted in the disturbance of all economic activities, not least of trade activity.

We are currently seeing the spectacular evolution of a new form of commerce - e-Commerce. This form of commerce, also called e-Commerce, is already a well-developed form of trade abroad, but which is in the early stages of evolution in the Republic of Moldova. At the same time, the legal basis and the accounting practice are at a rudimentary stage of development in this narrow and relatively new field. Thus, as a result, is being watched the creation of a theoretical basis for the implementation in practice of knowledge, in order to facilitate the correct accounting recording of economic operations by the entities that practice e-commerce. Difficulties also present the fiscal aspects of e-Commerce economic transactions, the examination of which is also being pursued through this article.

Achieving of the pursued goal by studying the subject involves the following objectives: developing the definitions, notions and fundamental accounting principles, examining the problems related to the record of economic operations in the commercial units that practice e-Commerce, and the detailed examination of the implementation of new payment methods by commercial units from accounting standpoint.

The conjuncture set out above confirms and reconfirms the timeliness and importance of the investigated topic, thus establishing the necessity of approaching the complex problems related to the accounting of the economic transactions in the units of commerce, as well as its improvement by taking into account the changes and the metamorphoses produced in the domestic business environment.

MATERIALS AND METHODS.

The investigation methodology involves both general and specific approaches to accounting and control management in commercial entities. The article includes complex scientific and methodological materials related to all aspects of the particularities of accounting in trade entities which practice in addition to traditional forms of trade, new commercial activities such as e-commerce, involving scientific research methods such as: observation, classification, inductive and deductive reasoning, analysis, synthesis, documentation and recording.

The legal and normative acts in the field of accounting in the Republic of Moldova serve as support for the research, as well as the theoretical conceptions presented in the specialized works of local and foreign scholars and specialists.

In order to deepen the chosen research theme, it was started from the current state of knowledge, signaling from the bibliography, the reference authors who have deepened the most significant in the field of accounting and management control in commercial entities.

Relevant national studies in the field of accounting in commercial entities are found in the research carried out by the team of authors Bajerean Eudochia, Melnic Georgeta, Țugulschi Iuliana and Bugan Corneliu in the book „Contabilitatea în comerț conform noilor reglementări contabile” (Accounting in trade according to the new accounting regulations) [5], by Tuhari Tudor in the book „Contabilitatea operațiunilor în comerț” (The accounting of operations in trade) [9] and by Harea Ruslan in „Contabilitatea operațiunilor comerciale” (The accounting of commercial operations) [10].

RESULTS AND DISCUSSIONS.

One of the most important problems related to accounting in commercial units which practice e-Commerce, is the dilemma related to the use of modern payment methods and the way to record these payments in the accounting system.

Until recently the economic entities of the Republic of Moldova used traditional methods of payment for the purchase of goods and services:

- by using cash, which involves the payment of cash at the supplier point of sale;
- by using bank transfers.

The most common methods of electronic payments are bank cards and electronic payment systems that use electronic money. The economic entities are already familiar with the use of bank cards. Regarding the use of electronic money, legal entities encounter significant difficulties at the present stage, due to the fact that national legislation has significant gaps in this sense (Law on E-Commerce 284/2004 is very superficial and general), and due to dilemmas related to reflecting in accounting and accurate documentation of these economic transactions. From accounting standpoint, the electronic payment systems work in the same way with small differences in or specific services.

With the evolution of technologies in the last five years, the commercial units (especially those that practice e-Commerce) started to use modern methods of payments through electronic payment systems. Pioneers in using modern payment methods have been and are the IT companies that interact more closely with business partners (suppliers and customers) from abroad. Subsequently, the use of electronic payment systems have spread among retailing companies, particularly among businesses that sell through the internet, using so-called online stores. Such economic entities are participants in a new form of commerce - e-commerce, which is growing in volume, and offer the opportunity for local traders and producers to enter the markets abroad faster and more efficient.

Thus, as modern electronic payment methods that have become very popular in the last period of time include:

- bank card payments (MasterCard, Visa, etc.). For legal entities, the commercial banks in the Republic of Moldova issue the called business cards;
- electronic payment systems: PayPal, WebMoneyTransfer, E-Gold, CyberPlat, Payonline, Perfect Money etc.);
- payments through using terminals;

From accounting standpoint, a major interest presents the use of electronic payment system, for example the use of PayPal.

PayPal is an electronic payment system, which involves the creation of an electronic account in that system by making an online registration on www.paypal.com website. This account (electronic purse) is attached to a bank card (in case of legal entities – to a business bank card). When the legal entity decides to purchase goods or services using as a payment method the PayPal electronic payment system, it will feed the PayPal account with the funds available on the company business card. Thus, the money from the company business card turns into electronic money on the company PayPal account. Then, accessing the merchant or service provider's webpage, the buyer must indicate the PayPal account data. Upon confirmation of purchase of the goods or services by the buyer, the funds from the buyer's PayPal account pass into the PayPal account of the supplier of goods and services. Subsequently, the money from the PayPal account of the vendor can be extracted on its business card.

The PayPal account practically works as a simple bank account. The biggest problem is the correct documentation and accounting record of the economic transactions made through the PayPal account, taking in consideration that the State Tax Service cannot register the PayPal account, analogous to a current bank account. Also, PayPal account statements cannot serve as supporting documents for recording in accounting system of business transactions because PayPal accounts cannot be taken at evidence by the State Tax Service.

For example, "W" company resident of the Republic of Moldova acquires on-line advertising services from Digitalocean.com in amount of \$ 100. PayPal funds are automatically withdrawn at the time of invoicing. W company has decided to supply the PayPal account with \$ 200 from business card account. Also, the W company decided to buy promotion services from Google Ireland Limited, worth \$ 100. Thus, theoretically, the following accounting formulas should be reflected in the bookkeeping:

- Dt 243 "Current accounts in foreign currency", subaccount 2432 "Cash on accounts abroad", analytical account "PayPal account" - \$ 200,

- Ct 243 "Current accounts in foreign currency", subaccount 2431 "Cash on accounts in the country", analytical account "business card USD" – \$ 200

The preparation of this accounting formula implies that the PayPal account must be registered by the State Tax Service, must be registered by the National Bank of Moldova as a foreign currency account, and the State Tax Service must recognize the PayPal statements as a primary document. Since these conditions cannot be met, the accounting formula that is usually drawn up is as follows:

- Dt 245 "Outgoing cash transfers", analytical account "PayPal account" - \$ 200,
- Ct 243 "Current accounts in foreign currency", subaccount 2431 "Cash on accounts in the country", analytical account "business card USD" - \$ 200

Subsequently will be recorded the following accounting formulas:

- Dt 521 "Current commercial debts", subaccount 5212 "Commercial debts abroad", analytical account " Digitalocean.com " - \$ 200,
- Dt 521 " Current commercial debts", subaccount 5212 " Commercial debts abroad", analytical account "Google Ireland Limited" - \$ 100,
- Ct 245 "Outgoing cash transfers", analytical account "PayPal account" - \$ 200.

When purchasing such services, there is the issue of withholding/non-retention of tax on the source of payment from the income to be paid to the non-resident and the issue of VAT calculation/non-calculation (namely whether the procurement is treated as an import of service).

According to the provisions of art. 91 par. (1) first indent of the Tax Code [3], persons mentioned in art. 90 retain and pay a tax of 12% from the payments directed to the non-residents for the income specified at art. 71, except those specified in the second, third and fourth indents of that paragraph. In this case, the company from the Republic of Moldova may apply the provisions of the Convention on the avoidance of double taxation concluded by the Republic of Moldova and the state of non-resident, and may therefore to refrain from withholding tax on payments directed to non-residents if it has the certificate that confirm their residence. These residence certificates are published by Facebook Ireland Limited and Google Ireland Limited on the official website or can be easily requested from their representatives, for example.

In answer to question no. 29.4.23 of the General Tax Practice Base [4] on the possibility of applying the double taxation agreements if the non-resident presented the certificate of residence in electronic form, the following explanations were given:

„According to art. 79³ of Tax Code [3], for the application of the provisions of the international treaties, the non-resident has the obligation to present to the income payer, before the date of payment of the income, a residence certificate issued by the competent authority of its state of residence. The residence certificate issued in a foreign language is presented to the payer with a translation in the state language, except for the one issued in English or Russian. The residence certificate shall be submitted on paper in original and/or electronic form for each calendar year in which the income is paid, irrespective of the number, the regularity of the payments and the type of income paid. The way of attestation of residence through certificates presented in electronic form is established by the Ministry of Finance. If the residence certificate has not been presented for the respective calendar year, the provisions of the tax legislation of the Republic of Moldova shall be applied.

Thus, the legislation of the Republic of Moldova offers the right to apply the provisions of international treaties on the basis of the electronic residence certificate if the law of the state of the non-resident offers this possibility of issuing the document.”

In situations where there is no double avoidance taxation treaty, it is not clear how the income obtained from a resident of Republic of Moldova, by a non-resident according to the service contract via the Internet shall be taxed. In accordance with art. 70 par. (1) of the Tax Code [3], the entire income of the non-resident taxpayer is divided into income obtained:

- in the Republic of Moldova from entrepreneurial or labor-based employment (work) agreements;
- abroad of the Republic of Moldova from entrepreneurial activities or from work contract (agreement).

Thus, the non-resident's income is deemed to have been obtained on the territory of the Republic of Moldova, only if it is related to the entrepreneurial activity carried out on the territory of the Republic of Moldova. The income obtained abroad from the territory of the Republic of Moldova as a result of doing business on the territory of the foreign state shall not be subject of taxation with income tax in the Republic of Moldova.

If the services provided by a non-resident are performed through the Internet network from the non-resident's place of residence located outside the Republic of Moldova, the income is considered as entrepreneurial activity carried out abroad of the Republic of Moldova and the resident is not obliged to retain tax on the source of payment, according to art. 91 of Tax Code [3].

The qualification of the services acquired as imported services, is established by the provisions of art. 111 lit. e) of the Tax Code [3], according to which the place of delivery of the services is considered the headquarters, and if it is missing - the domicile or residence of the beneficiary of the following services:

- advertising services;
- information technology services provided through electronic means.

Thus, on-line marketing services purchased from Facebook or Digitalocean.com (or other providers of such services) and on-line promotion services purchases from Google are considered to be import of services under art. 111 of the Tax Code [3].

The another payment method used in commercial activity in general and in e-Commerce in particular, are cash terminals.

Currently, cash-in terminals are a convenient and quick tool used to pay for a significant number of services, especially by individuals. The popularity of this payment instrument has registered a significant dynamic on the territory of the Republic of Moldova since the emergence of cash-in terminals on the local market in 2008-2009 to present. Through cash-in terminals, users are able to pay conveniently and quickly 24/7 bills for utility services, mobile and fixed telephony, internet services, credit, taxes and fines as well as various public services. The cash-in terminal user interface is intuitive and clear, taking the information from the payer and transferring it to the payee in just a few seconds. At present, payment terminals offer the ability to pay for more than 200 local and international providers.

What is, in fact, the so-called "cash-in terminal"?

In accordance with art. 3 of the Law on Payment Services and Electronic Money no. 114/2012 (hereafter - Law 114/2012) and point 3 of the Regulation on the application of cash machines, the cash-in terminal is an automated device for receiving from the payer (individuals) of cash in an autonomous regime without the physical presence (participation) of the person empowered by the payment service provider.

In general, the "actors" of a transaction through cash-in terminals are:

- the payment company - a company other than the bank or the postal service provider or the electronic money issuing company, licensed in accordance with the law for the provision of payment services;
- agent - legal entity providing payment services on behalf of a payment company;
- payee – the legal entity which is the recipient of funds that have been the subject of a payment transaction;
- the payer - person, the other contracting party of the economic operation in the payment operation which can also have the quality of consumer, beneficiary, buyer, client, patient, creditor / lender etc.

CONCLUSIONS.

In conclusion, it should be noted that the spectacular evolution of trade patterns, techniques and modalities of delivery of goods worldwide, the development of new forms of payment for purchased goods, determines the need for an in-depth study from accounting standpoint of these transactions that have peculiarities, problems, and dilemmas to be solved to facilitate accurate

accounting recording for such transactions. Also, the correct recording of the atypical economic transactions of traditional forms of trade involves significant metamorphoses in the process of developing, implementing and tracking the effectiveness of management control in trading entities. Worldwide, e-commerce is already a developed form of trade, and the tax and accounting legislation is tailored to such transactions.

In Moldova, e-Commerce is beginning to accelerate, and local retailers are just starting to penetrate such global virtual trade platforms such as amazon.com, ebay.com, aliexpress.com, etc. At the moment, the local accounting practice in e-commerce is at an early stage of development. The situation is also complicated by the fact that there is currently no strong theoretical base in this new direction of trade development. Thus, it is necessary to approach in detail the particularities of accounting and management control in the entities in general and in the commercial entities practicing e-Commerce in particular.

REFERENCES:

1. Legea cu privire la comerțul interior nr. 231 din 23.09.2010. În: *Monitorul Oficial al Republicii Moldova*. 2010, nr. 206-209, art. 681.
2. Legea privind comerțul electronic Nr. 284 din 22.07.2004. În: *Monitorul Oficial al Republicii Moldova*. 2004, Nr. 138-146 , art. 741.
3. Codul Fiscal al Republicii Moldova nr. 1163 din 24.04.1997 cu modificările ulterioare. În: *Monitorul Oficial al Republicii Moldova*. 2018.
4. Baza generalizată a practicii fiscale. Răspunsul la întrebarea nr. 29.4.23. Disponibil: <http://www.fisc.md>ShowQuestions.aspx?category=a75761eb-bddf-41c4-9bba-59e8c7328eaf&nr=29.4>
5. BAJEREAN, Eudochia, MELNIC, Georgeta, ȚUGULSCHI, Iuliana, BUGAN, Corneliu. *Contabilitatea în comerț conform noilor reglementări contabile*. Chișinău: ASEM, 2016. 310 p. ISBN 978-9975-53-613-4.
6. GRIGOROI, Lilia, LAZARI, Liliana, ș.a. *Contabilitatea întreprinderii, Ediția I*. Chișinău: Cartier, 2011. 508 p. ISBN 978-9975-79-703-0.
7. NEDERIȚA, Alexandru. *Contabilitatea veniturilor și cheltuielilor întreprinderii: teorie și practică: (Monografie)*. Chișinău: ASEM, 2007. 300 p. ISBN 978-9975-75-220-6.
8. NEDERIȚA, Alexandru. *Corespondența conturilor contabile conform prevederilor SNC și Codului fiscal*. Chișinău: Contabilitate și audit, 2007. 640 p. ISBN 978-9975-9546-4-8.
9. TUHARI, Tudor. *Contabilitatea operațiunilor în comerț*. Chișinău: ASEM, 2002. ISBN 9975-75-150-4.
10. HAREA, Ruslan. *Contabilitatea operațiunilor comerciale*. Chișinău: ASEM, 2004. ISBN 9925-75-257-8.

ACCOUNTING PROBLEMS IN HIGHER EDUCATION INSTITUTIONS WITH FINANCIAL AUTONOMY

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Abstract. *The Republic of Moldova adhered to the Bologna Process in 2005, when more reforms were realised in the field of higher education. Thus, the university system in the country underwent important changes in the effort to take over the principles of the Bologna Process. An important element is the financial autonomy of universities, which are today obliged to justify their own "utility" based on efficiency. In this article, I have proposed to myself to study the particularities of the activity of educational institutions with financial autonomy and the factors of influence on the accounting organization, and the improvement of the financial management system within the higher education institutions.*

Key words: *higher education, state educational standards, educational services, financial autonomy. National Accounting Standards, managerial accounting, financial reporting, calculation methods.*

INTRODUCTION.

Higher education has been and remains a key factor for the social, cultural and economic development of the knowledge-based society [6, pag. 13]. Higher education can ensure, directly and indirectly, the progress of the entire society, but only quality university education represents a promoter of human rights, sustainable development, democracy, peace, justice and social equity [1, art. 75].

The education process in the Republic of Moldova is carried out on the basis of the state educational standards, approved by the Ministry of Education, regardless of the type of property and the legal organizational form of the education institution [1, art. 14].

The public higher education system in the Republic of Moldova has been marked by numerous reforms, as a rallying approach to the community model. Changes in legislation focused on both the modernization of university management and governance, the improvement of funding mechanisms and methodologies, the enhancement of transparency in the allocation of budgetary resources, the revival of the accounting system and the innovation of the reporting mechanism, and the rethinking of internal / managerial control standards.

Although important progress has been made through these reforms, the public higher education institutions in our country continue to face many problems and, equally, challenges, focusing on aspects of financial and budgetary management, accounting management, audit and internal / managerial control, as well as measurement of economic and financial performances.

The overall objective of this study is to research and solve accounting problems in education institutions with financial autonomy in order to improve the accounting policies and treatments, the quality and utility of the financial and non-financial reporting process.

The research in this field is necessary and appropriate for several reasons:

- the change in the functioning of the state higher education institutions has completely changed their accounting and financial reporting, but less the qualification of the staff. However, accounting judgments must be formulated on the basis of new principles

MATERIAL AND METHODS

The informational support of the research is provided by the normative acts of the Republic of Moldova in the accounting and higher education sphere.

The investigation methodology used for the development of this scientific paper expresses a harmonious blending of several methods, in order to facilitate the correct understanding of the obtained results from the carried out research. Therefore, the scientific approach successfully combines the qualitative research with the quantitative and the theoretical (descriptive-conceptual) perspective with the pragmatic perspective, analyzing the main contributions of the various local and foreign authors to the scientific knowledge in the field and respecting the coordinates on the basis of which the investigated topic is approached nationally and internationally.

For developing the research, there have been used such tools as: participative and non-participatory observation, data and information collection and processing, analysis, synthesis, induction, deductive reasoning and comparison.

The research was carried out on the basis of examining the accounting regulatory framework governing the methodology of collecting, processing and use of information by higher education institutions in the country.

RESULTS AND DISCUSSIONS

Recently, five years have passed since the state higher education institutions of the Republic of Moldova have moved to financial autonomy, which provides the university's freedom to ensure revenue and allocation of financial resources, study fees establishment, accommodation fees in hostels/residence halls, taxes on services, financing and co-financing of university research, use and depositing of financial resources, using their own procedures for their efficient management.

As a result of granting financial autonomy to universities, a number of benefits have emerged. Universities now have the right and the freedom to accumulate, transfer from one year to another and distribute their financial resources internally, being responsible and ensuring the quality of studies, as well as obeying the legislation principles. Funding sources have been diversified, being reduced the dependence on limited public funding. At the same time, universities have been allowed to open bank accounts, so that financial resources are managed through bank accounts rather than from the Treasury. This implies the university's liberty to ensure income and to allocate financial resources, to establish study fees, hostel accommodation fees, service fees, financing and co-financing of university research, use and depositing of financial resources, using own procedures for their efficient management. At the same time, financial autonomy implies the increased responsibility of the university management for the management of financial resources. However, the specific aspects of these institutions have an impact on the way in which assets, debts and equity are reflected, and on the effects of specific activities, influencing the relevance of the generated financial and accounting information

Although in our country there has been carried out the harmonization of the accounting system of education institutions with financial autonomy with that of the entities, we cannot ignore the fact that the rationale of their existence has consequences on accounting. The implications are mainly related to:

➤ the way of financing (requires the use of budgets), which generates specific revenues and expenditures at the level of non-profit organizations;

➤ possible types of activities to be carried out (some even for financing purpose), which determines the accounting of assets and separate result generators for each type of undertaken activity;

➤ the way in which the outcome/result is determined is different, precisely because several types of activities are carried out, and this is set separately for each activity;

➤ special tax regulations on tax and VAT.

It would be premature to say that the current accounting system applied by education institutions is perfect and its functioning does not face certain problems, difficulties or uncertainties.

- (accrual accounting, business/activity continuity, accurate representation, prudence, etc.) for which accountants in the field are not sufficiently trained;

- limited theoretical and practical concerns that would provide a complete picture of accounting in the higher education institutions with financial autonomy, particularly accounting of the accumulation and distribution of the costs of basic and auxiliary activities, and implicitly the calculation of the cost of educational services;

- multiple ambiguities, misunderstandings, difficulties in accounting policies and treatments.

The challenge emerged from the initiative to bring in the light of the scientific reflectors both the peculiarities and the defining elements, but also the shortcomings related to the researched field,

in order to ultimately contribute to its development by identifying and advancing improvement proposals and improvement efforts, which would bring surplus value.

The study degree of the addressed theme.

The state higher education institutions from the Republic of Moldova have moved to financial autonomy starting January 1, 2013. As a consequence of the transition to financial autonomy, their way of activity under self-management conditions, the principles of financial and patrimony management and monitoring, accounting and financial reporting radically change. However, state higher education institutions organized and kept their accounting on the basis of strict and well-defined rules of budgetary accounting, based on budgetary classification and cash accounting. They also permanently benefited from guidance and counseling of the public authorities. With the transition to financial autonomy, changes the way of organizing and keeping accounting and financial reporting. It takes place the transition from budgetary accounting to accounting based on National Accounting Standards (NAS), radically changing the principles and rules of transactions accounting and financial reporting of the institution's position and financial performances. Or, the NAS have been developed for the corporate sector, the educational institutions remaining to be public with peculiarities in their activity.

In the literature, accounting in education institutions with financial autonomy is a less discussed subject. But this does not indicate that there are no issues that create difficulties and impediments to the proper accounting organization and the reporting of reliable information.

Among the local authors who first covered the problem of accounting in the education institutions is the researcher Elena Taban (2009), addressing the given topic in her doctoral thesis. Three years later, the research in this field is taken over, only this time in co-author with the scientist Tudor Tuhari (2011), continuing with the editing of a monograph. It is important to mention that at that time the education institutions organized their accounting on the basis of the budgetary accounting, respectively the carried out research was relevant for that period of development. However, the change in the functioning of education institutions and the regulatory base strongly influences accounting and financial reporting. Obviously, the key staff in the institutions was not prepared to fully meet the new challenges. The set of National Accounting Standards, in place at the time, of the institutions' transition to financial autonomy did not respond to all the difficult questions identified by their accountants. Even more, in the next year, new National Accounting Standards are introduced, as a result of which are identified new issues in this sphere of economy.

Although, over time, several researchers and economists have identified a variety of issues related to accounting and financial university management, many remain under-discussed, requiring deeper insights, clarifications, arguments, completions, and updates by adapting to the current context. In addition, public sector education institutions have distinctive peculiarities and features that differentiate them from other entities, by reference to the specifics of the field and the regulatory basis. These topical issues have attracted our interest and motivated us to study the multilateral theory and conceptual, methodological and pragmatic basis of the accounting of state higher education institutions with financial autonomy.

Many of the problems of organizing the accounting of education institutions remain insufficiently debated, requiring in-depths, clarifications, arguments, completions and updates by adapting to the current situation. In addition, academic education institutions have distinctive peculiarities and features that differentiate them from other entities, by reference to the specifics of the field and the regulatory basis. It is necessary to identify the peculiarities of the functioning of the educational institutions and their impact on the process of organizing accounting and control, taking into account the new paradigm of their development.

Even if it has been a decade and a half since the NAS have been applied, these institutions are not free from problems and worries about the functionality of their accounting system, but especially for the reporting information system. Most of these institutions use also some elements

and components of the budgetary accounting system, because they didn't have the possibility and the capacity to implement a modern accounting, that would meet the requirements of all information users.

A primary problem in the state higher education institutions of the Republic of Moldova, operating under conditions of financial autonomy, is the accounting of income, expenses and costs. The main ones relate to the correct application of professional judgment /reasoning in the case of income and expenditures classification by types of activities, the application of the income and expenses recognition and assessment criteria. Depending on their classification, the accuracy and reliability of income and expenses recording in the income and expenditures transactions related accounts and the presentation of income and expenditures information in the financial statements are required.

Another problem for education institutions represents the managerial accounting organizing. Although the regulatory framework in the Republic of Moldova emphasizes the necessity and the obligation of organizing managerial accounting, adapted to the specifics of the activity, in the practice of the education institutions there are shortcomings/backlogs at this chapter.

We mention that education institutions do not have accounting policies in the field of managerial accounting on the most important accounting segments, such as costs, expenses and income. As a result, they have not established through accounting policies the cost identification for accountability centers, indirect cost allocation methods, calculation methods of the cost of calculated services, etc. Regrettably, the educational institutions management did not enhance the value of the benefits of managerial accounting. It is obvious that managers are not aware that managerial accounting is an integrative information system, coordinated and oriented towards future events for influencing the running current events.

Also, in the center of our research, are placed the concerns for finding some calculation methods, which would ensure the operative determination of the cost of the services provided on accountability centers (faculties/departments, specialties, etc.) and the establishment of some indicators with increased power of information, needed for substantiating decisions for the efficient management of the institution's activity. Thus, the training cost calculation must be designed to distribute revenue and costs between accountability centers. Some costs and revenues can be directly attributed to specific activities, while a significant part of the costs need to be allocated (fixed assets depreciation costs, course rooms maintenance, electricity and heat consumption, personnel costs, etc.). The costs for training specialists in different specialties/departments also differ. Therefore, the need to determine a method for calculating and allocating all training costs is indispensable.

In our opinion, designing and substantiating an appropriate costs calculation system are essential to ensure the relevance of managerial accounting information, not just in establishing study fees, but also in organizing budget planning of faculties/departments and other subdivisions.

Another reticence relates to the equity accounting of the education institutions with financial autonomy, the size of which, in fact, was not correctly calculated and registered.

Another moment requiring attention and adjustment relates to asset accounting. The property managed by the institution is the state patrimony and is administered by the Ministry of Education or other Ministries under the authority of which the university is located (Ministry of Health, Ministry of Culture, Ministry of Agriculture and Food Industry).

Lately, the partnership between the private sector and institutions providing educational services is very much discussed. In accounting terms, this issue is not regulated and creates difficulties in properly accounting organizing.

Starting 2018, the new Accounting Law and the NAS amendments were implemented. The regulatory „revolution" also has an impact on accounting in public educational institutions, causing new difficulties and problems. The current wave of accounting reform in our country has determined us to anticipate important innovations regarding financial reporting in public higher education institutions, against the background of the obvious trend of rallying to the community paradigm. In this context, we have managed to capture the emergence of the universities

accounting, now and in the future, and to make the importance of accounting management within these institutions known.

CONCLUSIONS

As a result of the undertaken research, we observe that starting 2013, the state higher education institutions of the Republic of Moldova have experienced a consistent reform concerning the way they operate under self-management, the principles of financial and patrimony management and monitoring, accounting and financial reporting making significant progresses.

Changes in accounting were major and focused primarily on accounting principles, replacing cash accounting with accrual accounting, changing the budgetary accounts plan to corporate accounts, coming up with a new way to codify accounts and a new functionality. Through these changes, ambitious objectives are pursued, such as: eliminating the centralization of periodic synthesis reports at the level of the secondary and main credit authority, standardizing the analytical balances of the public institutions in order to centralize them at the Ministry of Finance, controlling the legal engagements of public institutions in the Treasury etc.

We consider that all these innovative approaches are important steps in improving the quality of accounting and statistical information, at the same time facilitating the increase in the speed of obtaining them. Accounting policies and practices are influenced by: the non-profit character of the institution, the specific sphere of activity, the types of activities being carried out, the financing arrangements, etc. Generally, accounting policies and practices in education institutions are roughly the same as in any other entity, but have some peculiarities. And, through the undertaken research, we can say that accounting policies and practices used in education institutions need to be adapted to their specificity in order to provide relevant financial and accounting information for users.

BIBLIOGRAPHY:

1. The Education Code of the Republic of Moldova, No. 152 dated July 17, 2014. In: Official Gazette, 24.10.2014, no. 319-324.
<http://lex.justice.md/md/355156/>; www.euniam.aau.dk (accessed on 17.03.2016).
2. The Government Decision on the Functioning of the State Higher Education Institutions under Conditions of Financial Autonomy, No. 983 dated December 22, 2012. In: Official Gazette of the Republic of Moldova, 25.12.2012, no. 270-272 (1057).
3. Assessment of the existing situation regarding university autonomy in Republic of Moldova: Report. Project 530740-TEMPUS-1-2012-1-DK-TEMPUS-SMGR. Chisinau, 2013. 41 p. <http://www.euni.am.aau.dk/fi/1eadmin/user/upload/Raport+autonomia+financiara+en.pdf> (accessed on 07.02.15).
4. Current Trends in Higher Education in the Republic of Moldova: Reflections of the members of the National Expert Team in Higher Education Reform of the Erasmus + Program. Edition 2015 http://wvm.erasmusplus.md/sites/default/files/pdf/tendinte_heres.pdf
5. A view of the legislative proposals on the restructuring, rationalization and modernization of higher education in the Republic of Moldova. Chișinău, 2015. <http://www.euniam.aau.dk>
6. Restructuring, rationalization and modernization of the higher education sector in the Republic of Moldova/Tempus, EUniaM Project, www.euniam.aau.dk/fileadmin/user/upload^Restructurarea+invatamantului+superior+in+Republica+Moldova.pdf
7. Higher education strategy in the Republic of Moldova in the context of the Bologna Process, http://www.utm.md/edu/legal/strategia_rm.pdf
8. Taban E., Tuhari T. Contabilitatea în instituțiile de învățământ superior publice și private: aspecte teoretice și practice. Chișinău: UST, 2011. 296 p. ISBN 978-9975-76-062-1. Taban E., Tuhari T. Recounting in public and private higher education institutions: theoretical and practical aspects". Chișinău: UST, 2011. 296 p. ISBN 978-9975-76-062-1.

THE BANKING SUPERVISION PROCESS IN THE REPUBLIC OF MOLDOVA IN THE CONTEXT OF IMPLEMENTATION OF BASEL III REQUIREMENTS

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Abstract. Beginning with year 2018, the banking activity in the Republic of Moldova will be conducted in line with the Basel III requirements, which will have a gradual implementation, until the year 2020. Changes in the regulatory framework will ensure the development of the domestic banking sector by strengthening the internal governance, reporting of all risks by banks and maintaining adequate capital, both in terms of quantity and quality, that will finally contribute to the offer of safer and better quality financial services. Reforms in the field of banking supervision have the goal to consolidate the banking sector as a whole, as well as the individual banks - prerequisites for real sector financing and ensuring the country's sustainable economic growth.

Key words: banking sector, Basel III requirements, supervisory framework, risk management, supervisory review and evaluation process

JEL CLASSIFICATION: G21, G32

INTRODUCTION

A sound and robust banking system is an important condition for a sustainable economic growth, taking into account the role of banks as financial intermediaries in the lending process. Moreover, the banks provide different services to consumers, enterprises and public authorities, which have great confidence in a bank when carrying out their activities at the national and international level. Sustainability and resistance to shocks of banks and the banking system as a whole are also important, given that these institutions operate with financial sources drawn from the population.

Accordingly, the basic functions of a banking supervisor include both the need to maintain financial stability and the security of deposits of individuals through an adequate regulatory and supervisory framework.

In April 2016 the National Bank of Moldova (NBM) approved the Basel III Implementation Strategy in accordance with the European legislative framework. The document aimed to identify the necessary measures for the implementation of the European banking regulatory and supervisory package. Between the years 2015 and 2017, the National Bank of Moldova benefited from the assistance provided by the central bank of Romania and Netherlands, through the Twinning project. The project was based on strengthening the NBM's ability to regulate and supervise the national banking sector in the context of the provisions of Directive 2013/36 / EU and Regulation 575 / 2013 related to the banking sector (the so-called CRD IV package).

On January 1, 2018 entered into force the Law on Banks' Activity No. 202 of 6 October 2017, which aims to consolidate the banking regulatory and supervisory framework in the Republic of Moldova (transition from Basel I to Basel III). With the coming into force of the new law, will be subjected to the public consultation the projects of the secondary normative framework subordinated to it, as well as the COREP reporting framework, which will enter into force at different times until the year 2020.

At the same time, the National Bank of Moldova continues to promote other reforms in the banking sector. It focuses on the transparency of the shareholders in order to attract new investors that meet the high quality requirements, on the establishment of solid corporate governance in the banking sector, on the identification of the banks' related parties and on the timely reflection of bad loans in banks' balance sheets.

As of March 31, 2018, in the Republic of Moldova operated 11 banks licensed by the National Bank of Moldova, including 4 subsidiaries of banks and foreign financial groups. During the first

quarter of 2018, banking sector assets continued to grow, banks having sufficient capital and capital adequacy, high liquidity and profitability. At the same time, the banking sector maintained the downward trend in lending activity, but the volume of loans granted in the first quarter of 2018 is increasing in comparison to the same period of the previous year. The share of non-performing loans in the loan portfolio during this period has diminished, but remains high, the banks continuing to step up their efforts to reduce the balance of non-performing loans.

MATERIALS AND METHODS

In order to elaborate this paper, a complex research methodology based on the use of scientific research methods was applied, including: synthesis method, comparative analysis, observation method, etc.

RESULTS AND DISCUSSIONS

Until the year 2017, the banking activity in the Republic of Moldova was regulated by the provisions of the international standards Basel I (issued in 1980s), which established the capital requirement for banks, with the goal was to absorb possible losses from the banks' exposures. The Basel I provisions were relatively simple and covered only the credit risk.

The strong growth of the banking sector, the sharp volatility of macroeconomic indicators, and the emergence of new financial instruments tradable on the money market have made the risks that banks faced to impose the need to promote new capital adequacy regulations.

In 2004, the Basel Committee on Banking Supervision issued the Capital Accord (Basel II). Basel II had the goal to create a new basis for the prudential regulation of capital. It offers a wider range of approaches from elementary to advanced methods of measuring credit, market and operational risk to determine the appropriate level of capital. It also provides a flexible structure, banks adopting those approaches that best suit their level of complexity and risk profile.

Basel II used a "three pillars" concept: minimum capital requirements, supervisory review and market discipline.

The pillar I required banks to have capital at least at the level calculated in line with the proposed approaches to cover credit, operational and market risks. It provides two approaches to measuring credit risk: a standardized approach and an internal rating approach.

The pillar II aimed to monitor all risks and allowed supervisors to impose individual requirements on banks, taking into account the risk exposure of each institution. According to Basel II pillar II, in the supervisory process, banks need to calculate capital adequacy based on their own internal risk management methodology.

The pillar III imposed on banks the obligation to disclose the integral information about risks, management, and the sufficiency of their capital, thus increasing transparency and market discipline in the financial sector.

As a response to several shortcomings in the framework of Basel II, that have been highlighted by the global financial crisis in 2008-2009, the Basel Committee on Banking Supervision has created new measures for the global financial system consolidation, published in 2010 as Basel III.

Basel III requirements represent an improvement of risk-based approach of Basel II. The main emphasis is to enhance the capital level of the loss absorption in correlation with the risk of banks' business models. These regulations represent a set of measures to strengthen global capital and liquidity requirements, bank transparency, risk management and corporate governance of the banking system. Basel III efforts are aimed at promoting a banking sector more resilient to the absorption of financial shocks, irrespective of their source, as well as reducing the risk of contagion of the financial sector with the real economy.

Basel III main goals are:

d)strengthening the quality of capital by increasing the minimum requirement for common equity and tier one capital

e) introduction of international liquidity standards to provide short-term (30 days) resistance to shocks (liquidity coverage ratio - LCR), and long-term (1 year) solid structural liquidity (net stable funding ratio - NSFR)

f) the systemic risk mitigation, which consists of several key elements: leverage ratio, measures to avoid pro-cyclicality, etc.

In the context of the NBM strategy of Basel III implementation in the Republic of Moldova, in order to achieve efficiently its goal, were set some objectives [2, p.10-11]:

1. Development of the primary and secondary legislative framework related to banks' activity for the implementation of Basel III

2. Development of the NBM's institutional capacity and on-site and off-site banking supervision instruments, in accordance with the new banking regulatory framework

3. Supervision and coordination the implementation of the new legislative framework in the banks of the Republic of Moldova by the NBM.

It is also very important to strengthen the dialogue with banks from the Republic of Moldova. The banks and the NBM should develop their knowledge in the field of banking activity and challenges of implementing the new framework, particularly in advanced approaches. Thus, NBM undertook the following actions [2, p.14]:

1) Required from banks to identify techniques of risk management and internal assessment of capital in banks

2) Raised awareness among both banks and supervisory staff on minimum capital requirements and their involvement in risk management processes

3) Assessed the level of readiness of banks to implement the package CRD IV, etc.

The NBM shall continuously ensure a dialogue with banks in the process of implementation of the new requirements by various methods, including thematic inspections, self-assessments carried out by banks, regular meetings with the banks' management, etc.

Concerning the insurance of transparency in implementation of the CRD IV/ CRR package requirements, the NBM will properly inform the public and institutions involved about the progress, results and any other information that may be considered useful to external users on the process of drafting the new legislative framework and its implementation at the NBM and supervised entities level.

The existence of qualified and trained staff in Basel III not only within the NBM but also at the level of each bank is a mandatory precondition for the effective and qualitative implementation of the new requirements. Thus, the NBM will promote a policy of attracting qualified human resources and training of existing staff within the domestic banking sector, by identifying additional training options for employees through meetings with the NBM experts, seminars and conferences organized by external donors of technical assistance, professional associations existing in the country. At the same time, the NBM will assess banks' efforts and human resource development strategies by other means and methods identified by them.

With the implementation of the law regulating the activity of banks, the National Bank of Moldova initiated the fundamental review of the banking supervision system, using risk-based supervision, forecasting and approach to the Supervisory, Review and Evaluation Process (SREP). Currently, the NBM has several instruments for the enforcement of sanctioning and supervision measures. Prudential supervision will also be carried out on a consolidated basis and in close cooperation with the foreign supervisors (including participation in colleges of supervisors) and other competent authorities.

It is important to mention that until the year 2018 the main supervisory approach used by the National Bank of Moldova as banking regulation and supervision authority was the compliance supervision. The on-site and off-site supervision process were performed by using the CAMELS rating methodology.

The CAMELS framework involved the analysis of six groups of indicators:

- Capital adequacy (C): the capital adequacy ratio, the quality of the analyzed capital based on the bank's capital components;
- Asset quality (A): concentration of banking sector assets, concentration of loans by sector, total non-performing loans, total assets / capital, risk-weighted assets / total assets;
- Management (M): this is an indicator of the overall bank's performance and it was analyzed only in the framework of the on-site inspections, given the fact that it is difficult to assess the quality of the management at distance, during the off-site supervision process;
- Profitability (E): return on assets, return on capital, interest income, interest charges, net interest margin;
- Liquidity (L): liquid assets / total assets, total loans / total deposits, liquid assets / total deposits;
- Market risk sensitivity (S): currency risk generated by open foreign exchange position, interest rate risk, etc.

The rating of each of the 6 components is assigned based on a numerical scale of 1 to 5, in descending order of bank performance. Mark 1 means the highest rating, the strongest performance and the most effective risk management methods, while mark 5 indicates the lowest rating and inadequate risk management methods.

Based on the individual rating of the six groups of indicators, is determined the overall bank's rating. An overall rating of "1" or "2" indicates a strong bank, which means that any problem occurred in the activity of the bank is minor and can be corrected by the bank's management. The compound rating "3" shows that the bank has certain weaknesses that need to be corrected. Supervisors must monitor the banks classified in this category more closely. Rating "4" or "5" expresses that the given banks are experiencing serious problems with a very high probability of bankruptcy in the future.

The main disadvantage of the CAMELS rating approach is that it offers information about a bank's performance at a given point in time, being a kind of historical monitoring. CAMELS do not offer to possibility to foresee some specific risks in the banks' activity.

That's why, the necessity to change the NBM's supervisory approach from compliance supervision to the risk-based supervision conditioned to introduce from the year 2018 the SREP methodology in the national supervisory framework.

The role of SREP is fundamental in assessing the risks to which the banks are exposed. Thus, the SREP process is focused on ensuring that the institutions have sound processes and mechanisms, as well as an adequate level of capital and liquidity to ensure effective risk management.

The SREP framework includes several components, presented in the table below.

Table 1. The components of the SREP framework

| | | | |
|--------------------------------------|---|------------------------------------|--|
| 10. Institution's classification | | | |
| 11. Monitoring of the key indicators | | | |
| 12. Business model analysis | 13. Assessment of internal governance and control | 14. Assessment of risks to capital | 15. Assessment of risks to liquidity and funding |
| 16. Overall SREP assessment | | | |
| 17. Supervisory measures | | | |
| 18. Early intervention measures | | | |

Source: elaborated by the author based on [4, p. 21]

Concerning the components 3 – 6 it is worth mentioning the following facts:

Business model analysis: supervisors assess the business activity of the bank, whether it has a wide array of activities or whether it focuses on only a few lines of business.

Assessment of internal governance and control: supervisors analyze a bank's organizational structure by monitoring its management bodies and checking whether the risks are being managed properly.

Assessment of risks to capital: supervisors analyze whether a bank has a sufficient capital to absorb losses arising from different risks.

Assessment of risks to liquidity and funding: supervisors check a bank's ability to cover ad hoc cash needs, for example, in times of economic uncertainty when depositors may withdraw much more money than usual.

It should be noted that the new legal framework in the banking field has kept some prudential provisions applicable previously and focuses, in particular, on strengthening internal governance practices and risk management in the banks. New approaches will be also introduced to calculate the regulated capital (funds own capital), the sufficiency of risk-weighted capital (which includes in addition to credit risk and other risks – risk operational, market and other risks related to banking) and liquidity indicators. Besides this, will be introduced new concepts such as financial leverage and associated risk, process internal capital adequacy assessment (ICAAP) and internal liquidity assessment process (ILAAP).

For improving the corporate governance in banks, the Regulation on the bank's management framework, which came into force on 1 July 2017, establishes provisions related to risk management. The banks should meet the requirements on risk management policies and limits on appetite and risk profile that ensure a progressive implementation of the Basel III framework [3, p.9].

In order to summarize the mentioned above facts, the implementation of BASEL III requirements in the national banking supervision framework will mainly include:

a) Checking the compliance of banks with the new prudential standards (Pillar I)

Thus, the reports submitted by banks according to the COREP / FINREP reporting framework, as well as the compliance of the internal regulations elaborated in the context of the new legislative framework, will be checked.

b) Supervision and evaluation process (Pillar II)

The National Bank of Moldova will ensure the verification of the management framework for the activity, strategies, processes and mechanisms implemented by each bank in order to comply with the provisions of the new law and the normative acts issued in its application and will carry out its own assessment of the risks to which the banks are exposed.

At the same time, the NBM will require banks to have a rigorous business activity management framework that includes a clear organizational structure with well-defined, transparent and coherent responsibility lines, effective processes for identifying, managing, monitoring and reporting the risks to which they are exposed (ICAAP), stress-tests, adequate internal control mechanisms, including administrative and accounting procedures.

Increased attention will be paid to management decisions of banks, to the existence of specialized committees of banks' councils, collective and individual responses to the knowledge and skills of members of management bodies, key personnel, etc. At the first stage, the NBM asked all banks to carry out a self-assessment of corporate governance and to take all necessary measures to comply with the legal framework.

According to the article 106 from the Law on Banks' Activity, the National Bank of Moldova shall monitor the banks' compliance with the prudential requirements and other requirements provided by the law and the applicable normative acts, based on the reports submitted by the banks and by on-site inspections [1, p.65].

The National Bank of Moldova, at least annually, should adopt a supervisory examination program for the banks it supervises. It shall mainly contain the following [1, p.65-66]:

d) the way the National Bank of Moldova intends to carry out its tasks and allocate resources;

e) an identification of banks which are intended to be subject to enhanced supervision and the measures taken for such supervision;

f) a plan for onsite inspections at the premises used by a bank, including its branches and subsidiaries established in other states based on cooperation agreements signed by the National Bank of Moldova with the competent authority of the respective country.

CONCLUSIONS

The NBM as the supervisory authority will need to identify an efficient balance between the implementation of Basel III and other supervisory priorities. This approach assumes that the objectives of Basel III mean not just the requirement of compliance with the set of rules relating to capital and liquidity. This framework aims at developing adequate infrastructure, developing risk management systems, capital adequacy, market discipline and financial stability and at implementing new supervisory instruments comparable to those of the international banks

Aligning the banking legislation of the Republic of Moldova to the international standards by improving the quantitative and qualitative banks' management mechanisms will contribute to the promotion of a secure and stable banking sector, will increase the transparency, trust and attractiveness of the domestic banking sector for potential investors and creditors of banks, as well as for depositors. The new framework conditions the development of new financial products and services by insuring of a financially stable environment that allows maintaining the financial soundness of banks and of the entire banking system.

REFERENCES:

- 1.Law on Banks' Activity no. 202 of 06 October 2017, 92 p.
(<http://bnm.md/en/content/law-banks-activity-no-202-06-october-2017>)
- 2.Basel III Implementation Strategy in accordance with the European legislative framework, 16 p.
(<http://bnm.md/ro/content/strategia-de-implementare-standardelor-bsel-iii-prin-prisma-cadrului-legislativ-european>)
- 3.Regulation on the bank's management framework, 35 p. (http://bnm.md/ro/printpdf/content/regulamentul_privind-cadrul-de-administrare-activitatii-bancii-aprobat-prin-hce-al-bnm-nr146)
- 4.Guidelines on common procedures and methodologies for the supervisory review and evaluation process (SREP), EBA/GL/2014/13, 19 December 2014, 218 p.
(<https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014>
13+(Guidelines+on+SREP+methodologies+and+processes).pdf)

INTERNATIONAL FINANCIAL REPORTING STANDARD (IFRS) 16 "LEASES": NEW APPROACH TO THE DEFINITION OF LEASES

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Abstract. The new IFRS 16 "Leases" is effective from January 2019 and will have a significant impact on the lease transactions accounting and the enterprises financial statements. Despite the fact that the very definition of leases has not undergone significant changes, the Standard specifies new requirements for the interpretation of lease operations and lease accounting principles.

Key words: leases, accounting, IFRS 16 "Leases".

JEL CLASSIFICATION: M4

On 13 January 2016, the International Accounting Standards Board (further IFRS) published a new accounting Standard for lease transactions - IFRS 16 "Leases". The Standard enters into force on 01 January 2019 and replaces the following standards and interpretations: IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", SIC 15 "Operating leases - Incentives", SIC 27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

The new Standard IFRS 16 "Leases" changes significantly the lessee's accounting treatment and also requires new disclosures in the financial statements of the lessor and the lessee. In the IFRS developers opinion, the proposed changes will contribute to a more accurate presentation of assets and liabilities in the enterprises reporting, and will lead to a greater transparency of lease activities in general. Due to the new international and national standards convergence, it is expected that the new international standard will affect dramatically the national lease legislation.

The very definition of a lease proposed by the new Standard has not undergone significant changes: "Lease is a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration." [1]. Nevertheless, the authors note that the new Standard changes the very model of lease transactions, shifting accents from "ownership" to "right of use" of the asset, which changes the sense of terms used in the definition of "leases".

Let us consider how the terms "part of a contract", "the right to use an asset", "for a period of time" and "consideration" should be understood within new Standard.

"Part of a contract" in the definition of a lease means that the contracts should not be tested only for signs of leases, but separate components of the contract should be assessed in order to identify the components that are leases and the components, which do not correspond to the definition of leases. The Standard authors through the notion of "part of a contract" specify that, entered into contracts shall be not just determined whether they contain a lease but separate components of the contract shall be reassessed to identify lease and non-lease components.

"A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration." [2].

An asset is identified if:

✓ it is explicitly specified in the contract (identification number, type, model, brand, etc.) or can be established from the provisions of the contract (for example, still non-assembled equipment, in the case when the contract provides for the production of an asset with further lease);

✓ a lessor does not have a substantive right to substitute the asset (the right to substitute is considered substantive if the lessor has the practical ability to substitute the asset and would benefit economically from the exercise of its right);

Example 1. Company A, a retailer, entered into contract with Company B, the warehouse administrator, for the placement and storage of the Company A goods. Is the contract a warehouse facilities lease?

To answer this question, we should assess another terms and conditions of the contract:

Variant 1: the contract specifies a particular storage place (sector) and company B does not have the right to replace stocks of company A. In this case, a part of the warehouse area, occupied by goods of company A, is an identified asset, since company B does not have a substantive right to substitute the asset. The contract should be accounted as a lease.

Variant 2: the contract does not specify a particular storage location, but the occupied space area or volume is specified only.

The asset is not identified, because company B, in order to optimize the work of the warehouse, has the right to place the company A goods in its discretion, i.e. has a substantive right to substitute the asset. The contract is accounted for as a contract of services.

The "right to use an asset" under the new Standard means the transfer of control over the asset to the lessee. The control over the use of the identified asset exists if the lessee has the following rights:

✓ the right to obtain substantially all of the economic benefits directly or indirectly by using, holding or sub-leasing the identified asset over the lease term;

✓ the right to direct the use and the purpose of an identified asset, (i.e. has the right to determine the amount, number, type, mix of produced products, place and time of use of an asset). In cases where the purpose and the use are specified by the contract (predetermined by the contract), it is considered that a lessee exercises control if the lessee has the right to influence on the operational parameters (mode of operation) or the asset was itself designed by the lessee for a specific purpose.

At the same time, the lessor has the right to impose certain restrictions ("the lessor protective rights") concerning the place and / or the time of use of an asset, the maximum value of output, to require a lessee to follow particular asset operating practices, impose a ban on the subject of a lease modification, etc. Those restrictions, however, do not affect the lessee's control over the use of the identified asset, since the benefits of using the asset should be assessed by the lessee at inception of a contract, within the requirements specified by the lessor.

Example 2. Company A has entered into a contract with the transport company T for the company A employees transportation. The contract specifies the registration number and brand of the car, the daily route, the number of passengers. The T Company has no right to use this car for other transportation or to substitute the car. Is this contract a car lease?

Variant 1: The T Company incurs the expense of refueling, repairing and maintenance of the car. Although the asset specified in the contract corresponds to the indicators of the identified asset (i.e., it is explicitly specified in the contract, it cannot be substituted, it is separable and stand-alone from other assets), the A Company does not have the right to direct the use of the asset, (the use is predetermined by the terms of the contract) and somehow affect on the extent of economic benefits obtained from the use of it. Under this contract, the control over the asset does not transfer to the Company A, so the contract cannot be defined as a lease and is accounted for as a service contract.

Variant 2: The A Company incurs the expense of refueling the car. The car operates on flex-fuel (gasoline and gas) and the A Company has the right to make decisions about the way of refueling the car. In this case, the A Company can regulate in its sole discretion the extent of benefits obtained from the use of this vehicle. Thus, the control is realized over the use of the asset and the contract shall be accounted for as a lease.

Variant 3: The A Company has the right to use the car both for the carriage of passengers and for the carriage of goods, provided that the daily mileage will not exceed the value determined during the compilation of the daily route. In this case, the A Company determines the way the car is used and directly affects the extent of the obtained economic benefits. The mileage restriction is a "protective rights" of the lessor and does not interfere with the control of the lessee over the asset. The contract is accounted for as a lease.

Due to the variety of lease contracts, and taking into account the fact that certain conditions for the use of the asset may not be clearly specified in the contract, the parties of the contract should assess carefully all the circumstances that accompany the transaction.

In cases where a lease transfers the right to use several assets (for example, a building and equipment), the company shall assess whether each asset forms a separate lease component. The right to use the asset is considered a separate lease component, if the following conditions exist [3]:

a) a lessee can benefit from the use of the underlying asset either on its own or together with other resources that are readily available to the lessee. Resources that are readily available are goods or services that are sold or leased separately (by the lessor or other suppliers), or the resources that the lessee has already obtained (from the lessor or from other transactions or events); and

b) an underlying asset is neither highly dependent on, nor highly interrelated with the other underlying assets in the contract. For example, the fact that a lessee could decide not to lease the underlying asset without significantly affecting its rights to use other underlying assets in the contract might indicate that the underlying asset is not highly dependent on, or highly interrelated with those other underlying assets.

Example 3. A Transportation Company T has entered into a contract with a Company C for a lease of a heavy truck with a trailer. How many components of the lease shall be accounted?

Variant 1: the T Company has the right to use the trailer and the tractive unit separately from each other. In this case, the contract contains two lease components: the tractive unit and the trailer. Each component is a separate independent unit that generates economic benefits, and should be accounted separately.

Variant 2: due to operational peculiarities, the C Company has established a ban on the use of the tractive unit together with other trailers. In this case, the assets are in close relationship, the T Company does not have the ability to obtain economic benefits from using the tractive unit without using the trailer at the same time. The contract contains a single lease component.

In cases where the lease transfers property leases with the land on which the property is located, IFRS 16 "Leases" requires that these assets are accounted as separate lease components, unless the effect of such accounting is immaterial to the lease as a whole.

A lease can also include "non-lease" components that do not "convey the right to control the use of an identified asset", but can affect the price of the contract significantly. Thus, the total amount of payments under the contract may contain:

a) the value of goods and services transferred under contractual obligations (for example, utilities, security, maintenance, garbage removal, cleaning, etc.). Such costs, reimbursed to the lessor, are a contract component that is a non-lease, which shall be identified, valued and accounted for as a separate service from the lease components.

b) other consideration associated with the identified asset, but that is not associated with the transfer of goods or services (insurance, taxes, administrative fees). According to IFRS 16 "Leases", such costs are not a component of the contract, as they do not, in isolation, depend on the fact of concluding a lease transaction, are not a service transferred to the lessee, and would be incurred by the lessor only in connection with the right to own the asset. Such costs, even transferred to the lessee, should not be accounted separately and are a part of the total consideration in the contract.

In order to facilitate the identifying the lease components in a contract, the Standard provides to assess the lease terms and conditions according to the following scheme (Scheme 1).

After identifying all the lease components, and non-lease components, lessors and lessees should distribute the total amount of consideration specified in the contract between those components.

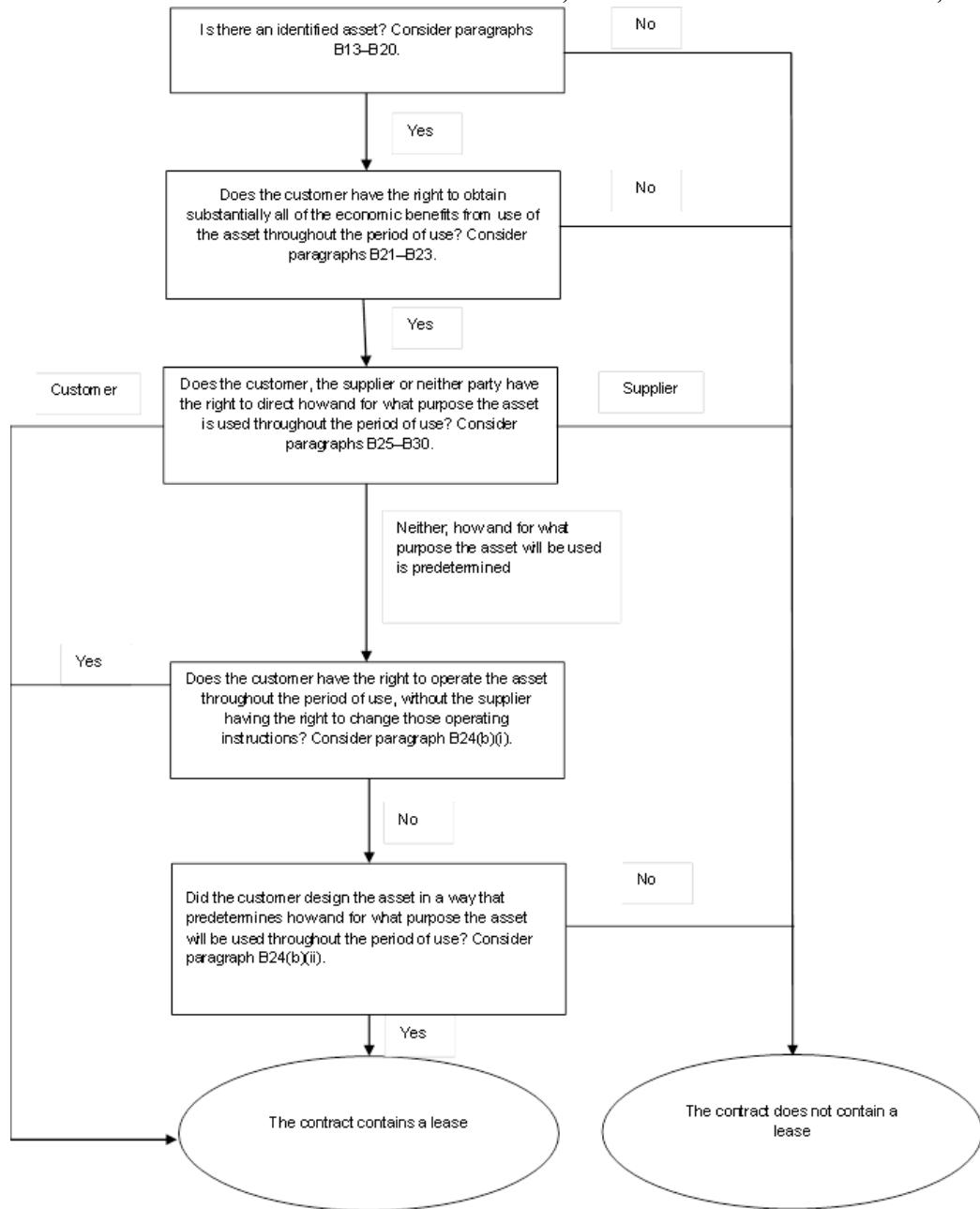
The lessors should distribute the value of the consideration on the basis of the relative stand-alone price, guiding by the provisions of paragraphs 79-90 of IFRS 15 "Revenue from Contracts with Customers". The stand-alone price of a good or service is the price at which an entity would sell to the buyer a promised product or service separately.

IFRS 15 "Revenue from Contracts with Customers" identifies three methods of the stand-alone price estimating: an approach based on adjusting the available market prices, an approach based on the amount of costs and margins and residual approach. Valuation methods are allowed to be combined in cases where highly uncertain stand-alone prices are observed.

Lessees, when taking into account the lease components, can apply a practical expedient, (according to which the lease components and non-lease components will be accounted for as a single lease component) or decide to allocate the consideration for each component of the contract on the basis of the stand-alone price.

Example 4. Company A entered into a lease contract with the company B for the office and warehouse for a total of amounts 20,000 m.u. (monetary units), 500 m.u. of which was compensation of the property tax. The lease includes also free services of cleaning. The A Company decided not to apply a practical expedient while taking into account the lease components. How the consideration should be allocated under the contract?

Scheme 1. *The assessment a lease in a contract, the source: IFRS 16 "Leases", B31*



The contract contains three components: two lease components - office lease and warehouse lease and one service component - cleaning. The property tax compensated to the lessor is not a separate component of the contract and cannot be valued and accounted for separately. Observed

market prices for leases of similar premises and cleaning services: office lease - 8,000 m.u., warehouse lease - 12,000 m.u., cleaning services - 2,000 m.u.

Table 1. The allocating of the consideration to the lease components, the source: the author of the work

| Component | Market price | Calculation | Component value |
|-------------------|--------------|-------------------|-----------------|
| Office | 8000 | 8000/22000*20000 | 7272,73 |
| Warehouse | 12000 | 12000/22000*20000 | 10909,09 |
| Cleaning services | 2000 | 2000/22000*20000 | 1818,18 |
| Total | 22000 | - | 20000 |

The separation of lease components would require the professional judgment in identifying such components and applying estimates to assess the observed individual prices. The professional judgment will be also required by determination of the period of time (the lease term) during which the lessee has the right to use the asset.

Lease term is the non-cancellable period of a lease, during which the lease can be extended (if the lessee is reasonably certain to exercise that option) or can be terminated (if the lessee is reasonably certain not to exercise that option). Lease term may be expressed both as a period of time and be described in terms of the amount of use of an identified asset (for example, the number of production units that an item of equipment will be used to produce). The lease term begins at the commencement date and includes any rent-free periods provided to the lessee by the lessor.

In determining the lease term, an entity shall determine the period during which the contract is enforceable. If the lessor and the lessee each has the right to terminate the lease without permission from the other party and without any significant penalty, the contract is considered to be not enforceable. In this case, both the lessor and the lessee have an option to cancel the lease, and in the determination of the lease term, the facts and circumstances that could lead to extend or terminate a lease shall be assessed carefully.

If only a lessor has the right to cancel the lease, it is considered that the lessor will not use this right, and the non-cancellable period of a lease includes the period covered by the lease cancellation option.

If only a lessee has the right to cancel the lease, this right should be taken into account as an option to terminate a lease and other factors and events, which may result in to exercise, or not to exercise, the option should be considered.

Examples of factors that need to be taken into account when assessing a lessee economic incentive to exercise or not exercise an option are set out in item B37 of IFRS 16 "Leases".

Example 5. A lessor Company A entered into a contract with a lessee company B to lease the office in exchange for fixed monthly payments for a period of 2 years. The contract provides for the lease extension on the same conditions for another 2 years, if one of the parties did not state in writing the lease termination before the end of the term. In addition, either party can cancel the lease at any time by notifying the other party in writing 2 months before the termination of the lease. There are no penalties for canceling the lease. The office is located in close proximity to the production and commercial premises of the company B. In this region there is no alternative property of the same class. It is expected that prices for property lease will rise in this region.

Variant 1: In this case, it is presumed that, notwithstanding the option to terminate the lease, neither the lessor nor the lessee will use it, since at inception of the contract there are no economic incentives for early termination of the lease. In addition, the lessee will most likely exercise an option to extend the lease, since the property has a convenient location, there are no alternative accommodation options, and the lease price for the lessee will remain constant for the next two years, despite the expected overall increase in prices for the lease properties in the region. Thus, there is some certainty that the lessee will exercise an option to extend the lease, so the lease term for both the lessor and the lessee will be 4 years.

Variant 2: A lessee knew at inception of the contract and notified the lessor about it, that it had been rehabilitating a part of the commercial premises for administrative needs, and possibly after the completion of the rehabilitating works, will refuse to extend the lease contract. The estimated completion date for the rehabilitating works is 1 year and 9 months. Since, the lease is not enforceable (either party can terminate the contract at any time without economic losses) and it is known that the lessee intends to use the option to terminate the lease, the lease term will be 1 year and 9 months as the minimum the non-cancellable period.

The presence of an option to extend in the contract, termination or purchase the subject of a lease is some complexity in determining the lease term and the calculation lease payments, as it may be unknown to lessee and lessor as each other's intentions, as well as future circumstances related to the lease contract. The longer the period between the lease inception date and the date of an option exercise it is, the more difficult to determine whether it is reasonably certain the likelihood of exercising or not exercising of the option. In this regard, the standard requires that entities reassess the lease period when affecting the exercise or refusal to exercise the option significant circumstances and events come after the lease inception date.

A significant determining the lease term is essential for the assessment and reflection in the accounting under the lease contract.

The Standard does not define the term "consideration" for leases. On the one hand, in the context of other provisions of the Standard, "consideration" means the amount of all payments from the lessee to the lessor within the contract, including payments for lease components, service components or other payments directly related to the performance of the contract. On the other hand, IFRS 16 "Leases" regulates the accounting for only a part of the consideration received for the right to use an asset, specifying that other components of a contract, other than a lease, are guided by other Standards. Thus, we believe that the term "consideration" used in the identifying a lease is nothing more than the amount of lease payments payable during the lease.

Lease payments include:

- a) fixed payments (including in-substance fixed payments) less any lease incentives;
- b) variable payments that depend on an index or a rate;
- c) the exercise price of a purchase option if the lessee is reasonably certain to exercise that option;
- d) payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.
- e) the amounts expected to be payable by the lessee under residual value guarantees.

Lease payments do not include amounts allocated to other contract components other than the lease components.

Initial measurement and accounting for lease payments significantly depends on the lease contracts classification. IFRS 16 "Leases" has established various requirements to the lease contracts classification for the lessor and the lessee.

For lessors, in comparison with IAS 17 "Leases", the classification of lease contracts has not changed substantially. At inception of the contract, the lessor classifies each lease contract as an operating or a finance lease.

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an asset. A lease, which was not classified as a finance lease, is as an operating lease. Paragraph 63-64 of IFRS 16 "Leases" provides examples of indicators and situations that individually or in combination would normally lead to a lease being classified as a finance lease. These criteria are similar to the provisions of IAS 17 "Leases".

The sum of the lease payments receivable by a lessor under a finance lease is assessed at an amount equal to the net investment in the lease. In turn, the net investment in the lease is equal to the receivable measured at the present value of the lease payments and the present value of the unguaranteed residual value of the asset accruing to the lessor.

The sum of the lease payments receivable by a lessor for an operating lease is recognized as a receivable and the lessee's income on a straight-line basis or another systematic basis if that basis is more accurately reflects the benefit diminishing from the use of the asset.

Unlike the rates specified for the lessor, the classification of lease contracts for the lessee has undergone substantive changes. Thus, in accordance with the IFRS 16 "Leases" requirements the lessee should apply either a unified accounting model for all of its lease contracts, or use "recognition exemption" for some type of contracts. Recognition exemption does not apply to all types of lease contracts, but only to those that meet the definition of short-term leases or leases of low-value assets.

A short-term lease is a lease, under which the right to use the asset is transferred for a lease term of 12 months or less. A lease cannot be classified as a short-term lease if it contains a purchase option. In case if the lessee chooses "recognition exemption" for short-term leases, such a decision must be enshrined in accounting policies and applied by class of underlying assets which include the right to use. A class of underlying asset is a grouping of underlying assets of a similar nature and use in an entity's operations.

A lease relating to low-value assets provides that the value of the underlying asset shall be an absolute value and its assessment shall be assumed on the value of the new asset, even if the right to use the asset of used asset is transferred under the lease. For example, the lease of car cannot be recognized as a lease of a low-value asset, because the new car has a significant value. An absolute value that would help classify assets as low-value or significant value assets is not set out by the requirements of the Standard. Nevertheless, the provisions of the Standard give examples of assets that should be considered as low-value assets, they include: tablets, personal computers, telephones, small items of office furniture, etc. The low-value asset accounting can be carried out for each asset or lease component separately, even in spite of the fact that the share of such contracts in the total number of leases can be significant.

The consideration in the leases accounting, to those that were chosen "recognition exemption", is similar to the operating lease requirements. Over the lease term, the lessee shall recognize the lease payments from such leases as expenses on either a straight-line basis or another systematic basis if that basis is more representative of the pattern of the lessee's benefit.

All other leases, including those that were chosen not to use the "recognition exemption", shall be recognized in accordance with the IFRS 16, "Leases" provisions 22-49. The lessee's leases accounting treatment, according to IFRS 16 "Leases" is similar to the current IAS 17 "Leases" requirements to financing leases. At the commencement date, a lessee shall recognize a right-of-use asset and a lease liability. And the lease liability will be the amount of the consideration for the use the asset. The lease liability is measured at the date of the commencement and it is equal to the present value of the lease payments that are not paid at that date. The lease payments shall be discounted using the interest rate implicit in the lease, if that rate can be readily determined. The implicit in the lease rate is the rate at which use the present value of lease payments and the unguaranteed residual value of the asset will be equal to the sum of the fair value of the asset and any initial direct costs of the lessor. If this rate is not specified in the contract, the lessee may find it difficult to determine it, because he may not have or have limited information on the initial costs of the lessor, and his assessment of the fair and residual value of the asset may differ from the lessor's assessment. If the discount rate cannot be determined, then, to assess the lease obligation, the lessee should use incremental borrowing rate (i.e. the rate at which he could obtain a loan). The lease liabilities are increased by the amount of interest accrued and are reduced by the amount of paid lease payments.

The new approach to the definition of a lease will largely change the lease accounting treatment. The developers emphasize that the main advantage of the new IFRS 16 "Leases" will be the reflection of all leases in the lessee's balance. In addition, the lease components will be separated from "non-lease" components that, in turn, will provide the financial statements users with more complete and reliable information about the obligations of companies.

Nevertheless, as expected, the application of the Standard will be accompanied by a number of difficulties, primarily due to the fact that the assessment and the lease accounting treatment rely heavily on the professional judgment of the financial statements compilers. Thus, professional judgment may be necessary in detecting an identified asset, assessing whether there is a right to control the use of an asset, delineating the contract components and allocating the consideration between those components, as well as when assessing the lease term and when determining leases of a low-value asset.

In addition, the different lease classifications for the lessee and the lessor, as well as the possibility of applying different discount rates for the accession of receivables and lease liabilities, will result for the lessee and the lessor in the different proportions of the amount of the consideration and interest within the structure of a separate lease payment. The imbalance within the lease payments structure, in turn, may be inconsistent with the principles of taxation. For example, when determining the amount of value added tax: the amount of the consideration is subject to VAT, and interest is not a subject to taxation. Consequently, under an operating lease, there is a difficulty in invoicing a lease transaction, since the lessee does not separate the payment into amount of the consideration and interest, and a lessee, according to the new requirements, shall take into account the interest on the transaction. Thus, at this stage, many requirements of the new Standard appear to be difficult to implement, and the introduction of IFRS 16 "Leases" should be accompanied by a review of the legislative and regulatory provisions governing accounting and taxation of lease transactions.

REFERENCES:

1. IFRS 16 "Leases", Appendix A, // <https://www.ifrs.org/>
2. IFRS 16 "Leases", 9, // <https://www.ifrs.org/>
3. IFRS 16 "Leases", Appendix B, B32, // <https://www.ifrs.org/>

SECȚIUNEA V: Suportul informatic și metode cantitative în economie

SOME ASPECTS OF THE NUMERICAL SOLVING OF THE TRANSPORTATION PROBLEM APPLYING THE SAVAGE CRITERION

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Abstract. In this study is proposed a new decision model for analyzing and solving some transportation problems when the activity is determined by uncontrollable factors, the number of „states” of nature is finite and the decision maker can choose from an infinite number of alternatives.

Keywords: uncertainty, states of nature, decision-maker, decision criteria, function of regrets.

JEL CLASSIFICATION: C02, C61

1. Introduction

The transportation problem consists in the establishment of an optimal distribution plan of goods to the markets where they are demanded. The classic wording of such problem lies in the following: is considered that m suppliers $A_1, \dots, A_i, \dots, A_m$ own a homogeneous product in the following quantities: $a_1, \dots, a_i, \dots, a_m$, which needs to be delivered to n consumer centers $B_1, \dots, B_j, \dots, B_n$ in the quantities $b_1, \dots, b_j, \dots, b_n$. In this situation is known the cost of transportation for a unit of product C_{ij} from the suppliers to the consumers [1].

Here: x_{ij} - denote the quantity to be transported;

ω - the "state of nature" that might occur.

2. Decision making model

It is considered a decisional situation for the transportation problem, described in the form:

$$Z(x, \omega) = \sum_{i=1}^m \sum_{j=1}^n C_{ij}(\omega) \cdot x_{ij} \quad (1)$$

$$\sum_{j=1}^n x_{ij} \leq a_i, \quad i = \overline{1, m} \quad (2)$$

$$\sum_{i=1}^m x_{ij} \geq b_j, \quad j = \overline{1, n} \quad (3)$$

$$x_{ij} \geq 0 \quad (4)$$

$$\omega \in \Omega = \{\omega^1, \omega^2, \dots, \omega^r\} \quad (5)$$

Depending on the condition (5), the model (1)-(4) can be considered as a multicriterial model. The main problem, here, is what could be considered the optimal solution, of course, admissible solution being any set $\{x_{ij}\}, i = \overline{1, m}; j = \overline{1, n}$, from the domain D (conditions (2)-(4)). When the information regarding to ω is "vague", the nature of the factor ω is far from being random. In these situations, the decision has to be designed based on the concept of "**minimal regret**" or **Savage's criterion**[2,3,4]. The considered model is:

$$Z_S(x) = \max_{\omega \in \Omega} (Z(x, \omega) - Z^*(\omega)) \rightarrow \min \quad (6)$$

Here: $Z^*(\omega) = \min_{x \in D} Z(x, \omega), \omega \in \Omega$.

The analysis of the model leads to the following conclusions:

- $Z_S(x)$ - is linear on portions, but convex [5];
- $Z_S(x)$ - is a non-differentiable function;
- The calculation of the subgradient of the function $Z_S(x)$ does not have essential difficulties.

Below are considered r problems of the following form:

$$Z(x, \omega^k) = \sum_{i=1}^m \sum_{j=1}^n C_{ij}(\omega^k) \cdot x_{ij} \rightarrow \min \quad (7)$$

with the restrictions (2)-(5), $k = 1, 2, \dots, r$.

Is considered that $Z_k^* = \min_{\omega} Z(x, \omega^k)$ and $Z(x, \omega^k) - Z_k^*$ - the value of the regret if the state of nature $\omega = \omega^k$. Then: $Z_S(x) = \max_{1 \leq k \leq r} (Z(x, \omega^k) - Z_k^*)$ - the maximum value of regret, considering that the transportation plan is represented by the set $x = \{x_{ij}\}$, $i = \overline{1, m}$; $j = \overline{1, n}$.

Next will be determined the variant x_S^* :

$$Z_S(x_S^*) = \min_{x \in D} Z_S(x) \quad (8)$$

3. Numerical algorithm for determining the variant x_S^* ('S' – Savage).

The following functions are defined:

$$\Phi_i(x_{i1}, \dots, x_{in}) = \sum_{j=1}^n x_{ij} - a_i, \quad i = \overline{1, m}; \quad (9)$$

$$\Psi_j(x_{1j}, \dots, x_{mj}) = b_j - \sum_{i=1}^m x_{ij}, \quad j = \overline{1, n}. \quad (10)$$

Obviously, if x - acceptable solution $\Rightarrow \Phi_i(\bullet) \leq 0, \forall i = \overline{1, m}$ and $\Psi_j(\bullet) \leq 0, \forall j = \overline{1, n}$.

For the beginning, is determined an arbitrary solution $x^0 = \{x_{ij}^0\}: x_{ij}^0 \geq 0$.

It is considered the set $X = \{x = \{x_{ij}\}, i = \overline{1, m}; j = \overline{1, n} : x_{ij} \geq 0\}$.

It is defined an iterative process, which consists in the successive determination of the matrices $x^0, x^1, x^2, \dots, x^s, x^{s+1}, \dots$ applying the method of the generalized gradient in a modified form[5] and adapted for used data structures. Here, $x^s = \{x_{ij}^s\}, i = \overline{1, m}; j = \overline{1, n}$ - the decision variant that corresponds to the iteration 's'.

The following matrix x^{s+1} is calculated as:

$$x^{s+1} = \prod_X (x^s - \rho_s \cdot g^s) \quad (11)$$

$g^s = \{g_{ij}^s\}, i = \overline{1, m}; j = \overline{1, n}$ - determines the direction of the shift at the iteration 's+1';

ρ_s - changes automatically: $\rho_s \geq 0, \rho_s \rightarrow 0, \sum_{s=0}^{\infty} \rho_s = \infty$.

|1> Either all the functions $\Phi_i(\bullet) \leq 0$ and $\Psi_j(\bullet) \leq 0$ when $x = x^s$, then $g_{ij}^s = C_{ij}^s$ and $C^s: Z_S(x^s) = \max_{1 \leq k \leq r} (Z(x^s, \omega^k) - Z_k^*)$. In this case $Z(x^s, \omega^k) = \sum_i \sum_j C_{ij}(\omega^k) \cdot x_{ij}^s$;

|2⟩ Either all the functions $\Phi_{i1}(\bullet) > 0$, $\Phi_{i2}(\bullet) > 0$, ..., $\Phi_{il}(\bullet) > 0$ and/or $\Psi_{j1}(\bullet) > 0$, $\Psi_{j2}(\bullet) > 0$, ..., $\Psi_{jt}(\bullet) > 0$, $1 \leq l \leq m$, $1 \leq t \leq n$, where i_1, i_2, \dots, i_l represent the indices of those Φ_i functions, $i = \overline{1, m}$, for which $\Phi_i(\bullet) > 0$. Respectively j_1, j_2, \dots, j_t - the indices of functions Ψ_j , $j = \overline{1, n}$, for which $\Psi_j(\bullet) > 0$.

- If $\Phi_i(x_{i1}^s, x_{i2}^s, \dots, x_{in}^s) > 0$, then $g_{ij}^s = 1$.
- If $\Phi_i(x_{i1}^s, x_{i2}^s, \dots, x_{in}^s) \leq 0$, then $g_{ij}^s = 0$.
- If $\Psi_j(x_{j1}^s, x_{j2}^s, \dots, x_{jm}^s) > 0$, then $g_{ij}^s = -1$.
- If $\Psi_j(x_{j1}^s, x_{j2}^s, \dots, x_{jm}^s) \leq 0$, then $g_{ij}^s = 0$.

$$\text{- If } \Phi_i(x_{i1}^s, x_{i2}^s, \dots, x_{in}^s) > 0 \text{ and } \Psi_j(x_{j1}^s, x_{j2}^s, \dots, x_{jm}^s) > 0, \text{ then } g_{ij}^s = \begin{cases} 1, & \text{if } \Phi_i(\bullet) \geq \Psi_j(\bullet) \\ -1, & \text{if } \Phi_i(\bullet) < \Psi_j(\bullet) \end{cases}.$$

There are models in which, in particular, for the balanced transportation problem, the solving algorithm will not lead to the situation when $\Phi_i(\bullet) \leq 0$ and $\Psi_j(\bullet) \leq 0$. In this case, the constraints are too "tough" to be met and the algorithm shown above applies only the rules from point |2⟩. The difficulty of solving the initial problem involves the introduction of a "tolerance threshold" to respect restrictions on the transportation problem, which would allow its solving with a certain accuracy, small enough and almost negligible in practice.

Next, with $\varepsilon_s > 0$ will be noted the value of the "tolerance threshold" corresponding to the iteration s .

Thus, the algorithm described above changes as follows:

|1⟩ Either all the functions $\Phi_i(\bullet) \leq \varepsilon_s$ and $\Psi_j(\bullet) \leq \varepsilon_s$ when $x = x^s$, then $g_{ij}^s = C_{ij}^s$ and $C^s : Z_S(x^s) = \max_{1 \leq k \leq r} (Z(x^s, \omega^k) - Z_k^*)$. In this case $Z(x^s, \omega^k) = \sum_i \sum_j C_{ij}(\omega^k) \cdot x_{ij}^s$;

|2⟩ Either all the functions $\Phi_{il}(\bullet) > \varepsilon_s$, $\Phi_{i2}(\bullet) > \varepsilon_s$, ..., $\Phi_{il}(\bullet) > \varepsilon_s$ and/or $\Psi_{j1}(\bullet) > \varepsilon_s$, $\Psi_{j2}(\bullet) > \varepsilon_s$, ..., $\Psi_{jt}(\bullet) > \varepsilon_s$; $1 \leq l \leq m$; $1 \leq t \leq n$

- If $\Phi_i(x_{i1}^s, x_{i2}^s, \dots, x_{in}^s) > \varepsilon_s$, then $g_{ij}^s = 1$.
- If $\Phi_i(x_{i1}^s, x_{i2}^s, \dots, x_{in}^s) \leq \varepsilon_s$, then $g_{ij}^s = 0$.
- If $\Psi_j(x_{j1}^s, x_{j2}^s, \dots, x_{jm}^s) > \varepsilon_s$, then $g_{ij}^s = -1$.
- If $\Psi_j(x_{j1}^s, x_{j2}^s, \dots, x_{jm}^s) \leq \varepsilon_s$, then $g_{ij}^s = 0$.

$$\text{- If } \Phi_i(x_{i1}^s, x_{i2}^s, \dots, x_{in}^s) > \varepsilon_s \text{ and } \Psi_j(x_{j1}^s, x_{j2}^s, \dots, x_{jm}^s) > \varepsilon_s, \text{ then } g_{ij}^s = \begin{cases} 1, & \text{if } \Phi_i(\bullet) \geq \Psi_j(\bullet) \\ -1, & \text{if } \Phi_i(\bullet) < \Psi_j(\bullet) \end{cases}$$

In order to implement the above algorithm, with the application of the "tolerance threshold", it is necessary that the numerical strings $\{\rho_s\}$ and $\{\varepsilon_s\}$ meet the following conditions [6]:

$$\rho_s \geq 0, \rho_s \rightarrow 0, \varepsilon_s > 0, \varepsilon_s \rightarrow 0, \frac{\rho_s}{\varepsilon_s} \rightarrow 0, \sum_{s=0}^{\infty} \rho_s \varepsilon_s = \infty.$$

As example, if $\rho_s = \frac{1}{(s+1)^\alpha}$, $\varepsilon_s = \frac{1}{(s+1)^\beta}$, $\alpha = \frac{1}{4}$, $\beta = \frac{3}{4}$, all the conditions, specified above, are met.

4. Experimental study

There is considered the following problem:

- The set of uncontrollable factors consists of two states: $\omega \in \{\omega^1, \omega^2\}$, $r = 2$.
- For $n = 4$ and $m = 3$, the tables of the possible routes for the transportation problems are presented in the table 1 (for ω^1) and table 2 (for ω^2).

Table 1. Table of the transportation problem for ω^1

| Warehouses | Consumer markets | | | | Supply (c.u.) |
|----------------------|------------------|----------------|----------------|----------------|---------------|
| | B ₁ | B ₂ | B ₃ | B ₄ | |
| A₁ | 2 | 4 | 3 | 6 | 120 |
| | x_{11} | x_{12} | x_{13} | x_{14} | |
| A₂ | 5 | 7 | 10 | 4 | 260 |
| | x_{21} | x_{22} | x_{23} | x_{24} | |
| A₃ | 7 | 5 | 8 | 6 | 170 |
| | x_{31} | x_{32} | x_{33} | x_{34} | |
| Demand (c.u.) | 70 | 180 | 100 | 150 | |

Table 2. Table of the transportation problem for ω^2

| Warehouses | Consumer markets | | | | Supply (c.u.) |
|----------------------|------------------|----------------|----------------|----------------|---------------|
| | B ₁ | B ₂ | B ₃ | B ₄ | |
| A₁ | 6 | 3 | 4 | 2 | 120 |
| | x_{11} | x_{12} | x_{13} | x_{14} | |
| A₂ | 4 | 10 | 7 | 5 | 260 |
| | x_{21} | x_{22} | x_{23} | x_{24} | |
| A₃ | 6 | 8 | 5 | 7 | 170 |
| | x_{31} | x_{32} | x_{33} | x_{34} | |
| Demand (c.u.) | 70 | 180 | 100 | 150 | |

The total cost of transporting from all sources to all destinations is:

- For ω^1 : $Z_1(x, \omega^1) = 2x_{11} + 4x_{12} + 3x_{13} + 6x_{14} + 5x_{21} + 7x_{22} + 10x_{23} + 4x_{24} + 7x_{31} + 5x_{32} + 8x_{33} + 6x_{34} \rightarrow \min$;

- For ω^2 : $Z_2(x, \omega^2) = 6x_{11} + 3x_{12} + 4x_{13} + 2x_{14} + 4x_{21} + 10x_{22} + 7x_{23} + 5x_{24} + 6x_{31} + 8x_{32} + 5x_{33} + 7x_{34} \rightarrow \min$.

The system of restrictions (2)-(4) is:

$$\Phi_1 = x_{11} + x_{12} + x_{13} + x_{14} - 120 \leq 0;$$

$$\Phi_2 = x_{21} + x_{22} + x_{23} + x_{24} - 260 \leq 0;$$

$$\Phi_3 = x_{31} + x_{32} + x_{33} + x_{34} - 170 \leq 0;$$

$$\Psi_1 = 70 - x_{11} - x_{21} - x_{31} \leq 0;$$

$$\Psi_2 = 180 - x_{12} - x_{22} - x_{32} \leq 0;$$

$$\Psi_3 = 100 - x_{13} - x_{23} - x_{33} \leq 0;$$

$$\Psi_4 = 150 - x_{14} - x_{24} - x_{34} \leq 0;$$

$x_{11} \geq 0, x_{12} \geq 0, x_{13} \geq 0, x_{14} \geq 0, x_{21} \geq 0, x_{22} \geq 0, x_{23} \geq 0, x_{24} \geq 0, x_{31} \geq 0, x_{32} \geq 0, x_{33} \geq 0, x_{34} \geq 0.$

Obviously, if all the functions Φ_i and Ψ_j are less than or equal to 0 for a set $\{x_{ij}\}$, then that solution is admissible and vice versa.

The optimal transportation plan is:

$$\text{- for } \omega^1: x^{1*} = \begin{bmatrix} 10 & 10 & 100 & 0 \\ 60 & 0 & 0 & 150 \\ 0 & 170 & 0 & 0 \end{bmatrix}; Z_1^*(x^{1*}, \omega^1) = 2110.$$

$$\text{- for } \omega^2: x^{2*} = \begin{bmatrix} 120 & 0 & 0 & 0 \\ 70 & 0 & 0 & 150 \\ 0 & 60 & 100 & 0 \end{bmatrix}; Z_2^*(x^{2*}, \omega^2) = 2370.$$

To solve the problem using the algorithm described above for Savage's criterion, has been developed a software that performs all the required calculations. Solving the proposed case study, considering that $s_{\max} = 100000$ iterations, the determined optimal variant is:

$$x_s^* = \begin{bmatrix} 0,0000001051 & 66,3076419182 & 52,6299723540 & 1,0594384480 \\ 69,9945377032 & 42,6850464133 & 4,0296898121 & 93,3024599113 \\ 0,0060015304 & 71,0078519204 & 43,3432720202 & 55,6416428195 \end{bmatrix}.$$

For x_s^* , the goal functions are evaluated at:

$$\text{- for } \omega^1: Z_{1S}^*(x_s^*, \omega^1) = 2527,4291702017;$$

$$\text{- for } \omega^2: Z_{2S}^*(x_s^*, \omega^2) = 2787,4171202673.$$

It should be noted that, although purpose functions have different values, the regret for each of them is almost the same and minimum at the same time: $Z_{1S}^*(x_s^*, \omega^1) - Z_1^*(x^{1*}, \omega^1) = 417,4291702017$ and $Z_{2S}^*(x_s^*, \omega^2) - Z_2^*(x^{2*}, \omega^2) = 417,4171202673$.

The main purpose of the Savage's criterion is to ensure a minimal regret for the decision-maker, regardless of the concrete state of nature with which uncertainty may occur.

5. CONCLUSION

The transportation problem approach, presented in this paper, covers only a part of the total distribution problems faced by decision-makers under uncertain conditions. The model of "minimal regret" comes to bring a new vision to the procedures of solving for this class of problems, based on the principles described by Savage, in the conditions when the manifestation of uncontrollable factors cannot be anticipated and the decision-maker does not know the concrete values of the coefficients $C_{ij}(\omega)$, but only the possible ranges, depending on their "states of nature":

$$\underline{C}_{ij} \leq C_{ij} \leq \overline{C}_{ij}.$$

REFERENCES:

1. Andrei Gametchi, Dumitru Solomon. *Cercetări operaționale, Volumul I*. Chișinău, Evrica, 2015, pag. 209-216.
2. Hamdy A. Taha. *Operations research an introduction*, 3rd edition. London 1982.
3. Savage L. J. *The theory of statistical decision*. J. Amer. Statist. Assoc., 1951, vol. 46, pp. 55-67.
4. Anatol Godonoagă, Lilian Golban. *Modification of the Savage's decision criterion for continuous processes*. The 4th Conference of Mathematical Society of the Republic of Moldova, dedicated to the centenary of Vladimir Andrunachievici (1917-1997), 28 June – 2 July 2017, Chisinau, Moldova, pp. 389 - 392.
5. Шор Н. З. *Методы минимизации недифференцируемых функций и их приложения*, Киев, „Наукова Думка”, 1979.
6. Anatol Godonoagă, Anatolie Baractari. *Modele economice nediferențiabile. Aspekte decizionale*. Editura ASEM, Chișinău 2011, pp. 41-100.

ADOPTING THE BEHAVIOR OF PRODUCTION SYSTEMS TO MARKET DEMANDS

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Abstract. In this work are characterized some decisional situations that the management company's production subsystem can face in order to obtain a maximum possible income. Initially, the classic linear production model is introduced, which then is adapted to certain forms of demand for goods, but also to the needs of the enterprise to ensure the necessary resources. In the new conditions, the corresponding patterns become non-linear. That is why the study of such models becomes essentially more complicated and the adapted models are much closer to reality.

Key words: Production system, supply, demand, income, deterministic models, non-deterministic models.

JEL CLASSIFICATION: C61 , D24

INTRODUCTION

Knowing the operating conditions of the market, each producer agent is concerned with managing its business so that the company is as competitive as possible and the net gain is as good as possible. In the market economy, there may be different situations in terms of competition or different combinations of the following: perfect, imperfect, monopolistic, duo and oligopolistic. But regardless of these particularities, any production system is in a constant interaction, but also interdependence with the environment, which is made up of two components of primary importance: the goods and services market and the market of the factors of production, or resources.

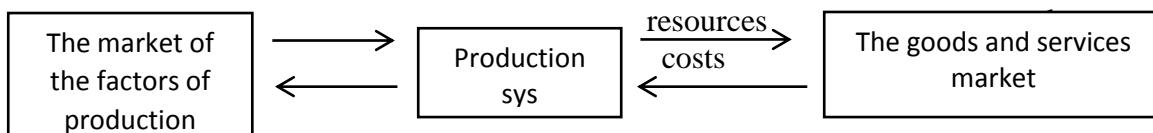


Figure 1. The relations between the production system and the environment.

MATERIALS AND METHODS.

The linear model of a production system is well known, where the emphasis is on maximizing hypothetical income(profit).

$$\sum_{j=1}^n c_j u_j \rightarrow \max \quad (1)$$

$$\sum_{j=1}^n a_{ij} u_j \leq b_i, \quad i = \overline{1, m} \quad (2)$$

$$u_j \geq 0, \quad j = \overline{1, n} \quad (3)$$

Here : u_j – decision variable - the amount of asset j to be determined;

c_j – product j price ;

a_{ij} – the technological coefficients;

b_i – resource availability .

The model (1) - (3) does not take into account the balance between supply and demand. This model is obtained assuming that the whole product j will be sold.

If on the market some economic agent intends to conclude a contract with the manufacturer, and they conclude such an agreement, to certain quantities initially established $y_1, \dots, y_j, \dots, y_n$, then, the producer could reassess the income, in relation to the good j , given by the function :

$$v_j(u_j, y_j) = c_j \min \{u_j, y_j\} - p_j \max \{0; u_j - y_j\} - q_j \max \{0; y_j - u_j\} \quad (4)$$

Where : p_j – losses due to the failure of an 'extra' unit of good j ($u_j > y_j$) ;

q_j – the fine paid by the manufacturer for a unit not given by the product j ($u_j < y_j$) .

Formula (4) integrates 3 different conditions from the relationship between supply and demand, namely :

$$v_j(u_j, y_j) = \begin{cases} c_j u_j & , \text{ if } u_j = y_j \\ c_j u_j - q_j(y_j - u_j) & , \text{ if } u_j < y_j \\ c_j u_j - p_j(u_j - y_j) & , \text{ if } u_j > y_j \end{cases}$$

$v_j(\cdot)$ admits the following graphical representation in relation to u_j :

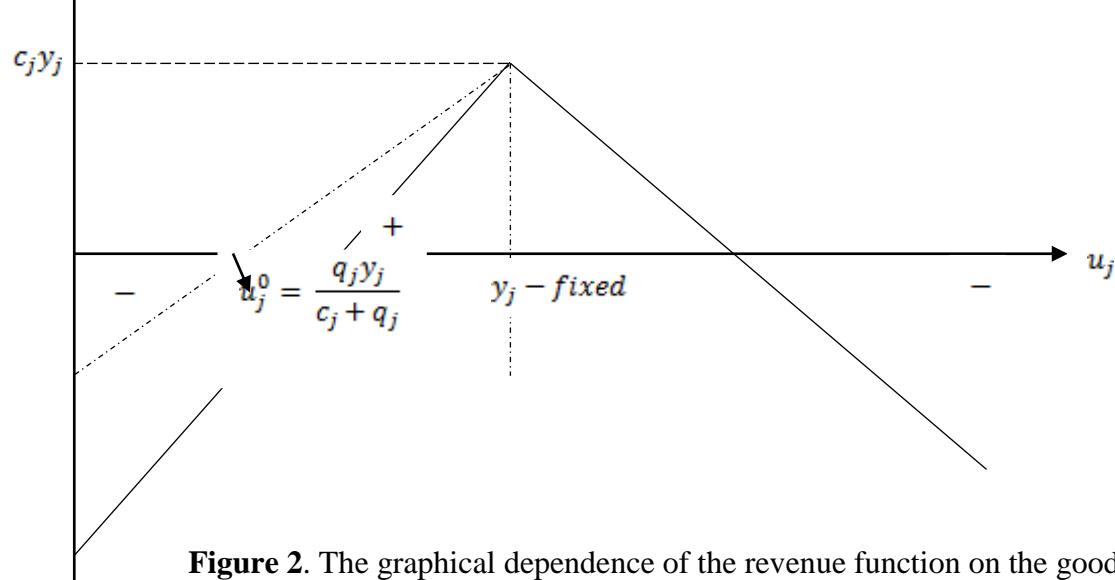


Figure 2. The graphical dependence of the revenue function on the good j .

If the manufacturer was not in a position to pay a fine, then the chart of addiction $v_j(u_j, y_j)$, for $u_j \leq y_j$, would be the dotted line.

At the same time, analyzing the terms of the contract, the manufacturer can find out that his own resources $b_1, \dots, b_i, \dots, b_n$, may not be enough. Thus, there is a need to resort to the resource market (production factors) in order to obtain additional resources in unknown quantities, $x_1, \dots, x_i, \dots, x_m \geq 0$

If resource prices are specified by the sizes $r_1, \dots, r_i, \dots, r_m$, obviously, the linear model (1) - (3) is to be changed according to the new decisional situation ; in this case as a decision-maker, serve vectors $u = (u_1, \dots, u_j, \dots, u_n)$ and $x = (x_1, \dots, x_j, \dots, x_m)$, and the model itself has the form :

$$\sum_{j=1}^n v_j(u_j, y_j) - \sum_{i=1}^m r_i x_i \rightarrow \max (y, x) \quad (1')$$

Restrictions (2) and (3) are changing (or are to be adapted to this new situation) in this way :

$$\sum_{j=1}^n a_{ij} u_j \leq b_i + x_i, \quad i = 1, m \quad (2')$$

$$0 \leq u_j \leq \underline{u}_j \leq \bar{u}_j \quad (3')$$

$$0 \leq x_i \leq \underline{x}_i \leq \bar{x}_i, \quad i = 1, m \quad (4')$$

In (3') , \underline{u}_j , \bar{u}_j – the upper and lower ceilings in relation to product j , which are considered to be time-valued and known at the time.

Another situation, but also another complexity, would be the case that demand for products would behave randomly according to a determined distribution law, for example on the basis of a sample of observations $y^1, \dots, y^2, \dots, y^L$.

In such situations, the manufacturer may "walk" on several paths, choosing one of the possible ones:

I. Maximizing the revenue in order achieve the worst variation of demand [1], (in this case : $v_j(u_j, y_j) = c_j \min_n \{u_j, y_j\} - p_j \max_n \{0; u_j - y_j\}$) thus expressed:

$$\max_u \min_u \sum_{j=1}^n v_j(u_j, y_j)$$

Here u complies with the restrictions (2) or (2') and (3'); y being the element in the indicated sample, or from some known domain \mathbf{Y} .

II. Maximizing revenue into Hurwicz's realism concept [1] :

$$\max_u \left[\alpha \min_y \sum_{j=1}^n v_j(u_j, y_j) + (1 - \alpha) \max_y \sum_{j=1}^n v_j(u_j, y_j) \right],$$

where $\alpha \in [0; 1]$, represents the agent's inclination to pessimism.

III. Maximizing your average revenue [] (expected earnings):

$$\max_u \left[M_y \left(\sum_{j=1}^n v_j(u_j, y_j) \right) \right],$$

$M_y(\cdot)$ means the mean value in relation to the random element y of the expression in brackets (\cdot).

IV. Optimizing income in the Savage concept[3] (minimize regret)

$$\min_u \left[\max_y (\max_u v(u, y) - v(u, y)) \right]$$

RESULTS AND DISCUSSIONS

Depending on the used criteria, decisional models of different complexity are obtained. Analysis, including the optimization of these models, is possible only in the application of numerical methods, such as, for example, the generalized gradient method [2], with some case-by-case changes [3]. Obviously, an analytical study of such situations can only be carried out in the simplest cases, but also in the latter case the study may be partial and not total (ample).

Further, an algorithm will be described for solving, with some approximation, the model in the layout (1' – (4')). The following notations will be used for this purpose :

$$R(u, x, y) = \sum_{j=1}^n h_j(u_j, y_j) - \sum_{i=1}^m r_i x_i$$

$$\varphi_i(u, x_i) = \sum_{j=1}^n a_{ij} u_j - b_i - x_i$$

$$\varphi(u, x) = \max\{\varphi_1(u, x_1), \dots, \varphi_m(u, x_m)\}$$

$$U = \left\{ u = (u_1, \dots, u_j, \dots, u_n) : \underline{u}_j \leq u_j \leq \bar{u}_j, j = \overline{1, n} \right\}$$

$$X = \left\{ x = (x_1, \dots, x_i, \dots, x_m) : 0 \leq x_i \leq \bar{x}_i, i = \overline{1, m} \right\}$$

The proposed algorithm operates in the process of working with two special numerical strings : $\{h_k\}, \{b_k\}$.

h_k represents the step size at the iteration k . b_k is called a tolerance threshold corresponding to the iteration k . In order for the algorithm to solve the problem it is necessary to meet the following conditions :

$$h_k > 0, h_k \rightarrow 0, b_k > 0, b_k \rightarrow 0$$

$$\sum_{k=0}^{\infty} h_k b_k = \infty, h_k/b_k \rightarrow 0$$

Initially, an arbitrary point is taken (u^0, x^0) , where $u^0 \in U$, and $x^0 \in X$. Calculate value $\varphi(u^0, x^0)$. Two cases are possible :

$$a_0) \varphi(u^0, x^0) \leq b_0$$

The following element is determined (u^1, x^1) like this :

$$u^1 = P_U(u^0 + h_0 g_u^0), \text{ where}$$

$g_u^0 = \text{grad } R_u(u^0, x^0, y)$ – the generalized gradient of the function $R(u, x, y)$ in relation to vector u , calculated in point (u^0, x^0, y) ;

$$x^1 = P_X(x^0 + h_0 g_x^0),$$

$g_x^0 = \text{grad } R_x(u^0, x^0, y)$ – the generalized gradient of the function $R(u, x, y)$ in relation to vector x , calculated in point (u^0, x^0, y) ;

$$b_0) \varphi(u^0, x^0) > b_0$$

In this case $u^1 = P_U(u^0 - h_0 g_u^0)$, for $g_u^0 = \text{grad } \varphi_u(u^0, x^0)$ – the generalized gradient of the function $\varphi(u, x)$ in relation to u , for $(u, x) = (u^0, x^0)$;

$$x^1 = P_X(x^0 - h_0 g_x^0), \text{ for}$$

$g_x^0 = \text{grad } \varphi_x(u^0, x^0)$ – the generalized gradient of the function $\varphi(u, x)$ in relation to vector x , for $(u, x) = (u^0, x^0)$;

$P_U(\cdot)$ and $P_X(\cdot)$ are the designers of the points in the brackets on the corresponding U and X domains []. Similarly, the points are built $(u^2, x^2), (u^3, x^3), \dots, (u^k, x^k)$. Thus :

$$a_k) \text{ if } \varphi(u^k, x^k) \leq b_k, \text{ then :}$$

$$u^{k+1} = P_U(u^k + h_k g_u^k), \text{ where } g_u^k = \text{grad } R_u(u^k, x^k, y);$$

$$x^{k+1} = P_X(x^k + h_k g_x^k), \text{ for } g_x^k = \text{grad } R_x(u^k, x^k, y)$$

$$b_k) \text{ if } \varphi(u^k, x^k) > b_k, \text{ then :}$$

$$u^{k+1} = P_U(u^k - h_k g_u^k), \text{ for } g_u^k = \text{grad } \varphi_u(u^k, x^k)$$

$$x^{k+1} = P_X(x^k - h_k g_x^k), \text{ for } g_x^k = \text{grad } \varphi_x(u^k, x^k)$$

The implementation of the algorithm can be performed in a programmed or dialog mode. Stopping the algorithm can take place in several situations:

1. It is obtained at some iteration $k = k_{\text{stop}}$, an acceptable value of the goal function $R(u, x, y)$ for $(u, x) = (u^k, x^k)$, where (u^k, x^k) is a decision variant for which function $\varphi(u^k, x^k) < b_k$;

2. Planned calculation time expires, and in this case the process can be resumed considering the last element as the starting point (u^k, x^k) obtained at the previous execution of the algorithm;

3. It is required to review the previous model (1' – 4') from the need for certain clarifications;

CONCLUSIONS.

The linear model (1) - (3) can be solved using the known simplex method. Modified patterns, regrettably, can not be solved in this way. Adapting model (1) - (3) to different situations, nonlinear and non-differentiable models are obtained. These properties require the application of new ideas and tools for analyzing and optimizing the respective models. The latter are changes to the generalized gradient method.

REFERENCES:

1. A.Gamețchi, D. Solomon. Cercetări operaționale. Volomul I . Chișinău, "Evrica", 2015, pag. 27 – 45
2. Шор Н. З. Методы минимизации недифференцируемых функций и их приложения , Киев , "Наукова Думка" , 1979.
3. A. Godonaagă, A. Baractari . Modele economice nediferențiabile . Aspecte decizionale. Editura ASEM, Chișinău , 2011

SECȚIUNEA VI: **Econometrie și statistică economică**

ASSESSMENT OF INFLATIONARY PRESSURES BY ESTIMATING THE DEVIATION FROM THE EQUILIBRIUM PRICE LEVEL

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Abstract. *The inflationary pressures determined by the aggregate demand are, generally, evaluated by assessing the level of economic activity that is above or below the potential output. Another approach that can provide significant information about the level of inflationary pressures is to consider the data concerning the economic activity along with the monetary aggregates. The difference between the current price level and the equilibrium price level determined by the structural characteristics of the economy exerts pressures on the level of inflation in the future periods and it can be used as an important indicator for monetary policy authorities in the decision making process. The analysis of the evolution of this deviation from the equilibrium prices and of the core inflation denotes a certain co-movement between the two.*

Key words: core inflation, inflationary pressures, equilibrium prices, monetary policy, quantity theory of money.

JEL CLASSIFICATION: C01, C22, C51, E 31, E51, E52

INTRODUCTION

There is a significant effort in understanding the main factors which drive inflation and in developing some efficient tools to analyze and forecast inflation in different economies. This would enable policy makers in designing appropriate policies and adopt necessary decisions in order to keep prices stable. One approach that can provide important information on existing inflationary pressures is the model based on the deviation of the current price level from the equilibrium one. The study of the impact from the deviation of the actual level of prices from the equilibrium one on inflation is based on the quantity theory of money and explains the dynamic link between monetary aggregates and inflation. This framework assumes that there is a long-run equilibrium price level in the economy to which the actual price level tends to converge. The long-run price level is called P^* and the difference between actual price level and the P^* level defines the P^* gap. If the gap is positive, i.e. actual price level is higher than the equilibrium P^* level, one can expect lowering of inflation as the gap tends to close [1, p.1-6].

Information regarding the actual price level is easily accessible from the statistical authority. What makes this approach challenging is the identification of the equilibrium price level, the so-called P^* level. There are two concepts, which take into account domestic or foreign factors. Their share depends on openness of the economy and monetary policy regime.

MATERIALS AND METHODS.

Within the flexible exchange rate regime, the monetary theory assumes a link between monetary aggregates and domestic prices based on a well-known identity

$$MV = PY \quad (1)$$

where M is the amount of money in the economy (e.g. M2), V- the velocity which express how fast the money circulates, P- the actual price level (e.g. CPI) and Y the real output (GDP).

Because long run trends V^* and Y^* are given by the structural characteristics of the economy, the long-run trend of price level P^* can be estimated by:

$$P^* = MV^* / Y^* \quad (2)$$

and the respective domestic P^* gap as:

$$GAP^D = P / P^* = (Y^* / Y)(V / V^*) \quad (3)$$

or in a logarithmic form:

$$GAP^D = p - p^* = (\ln Y^* - \ln Y) + (\ln V - \ln V^*) \quad (4)$$

where small characters represent natural logarithms [2, p.2-8], [4].

As mentioned above, the GAP^D tends to close over the medium horizon. Based on the theory, there are only two ways how it can happen: (i) by change in the domestic price level (i.e. inflation) or (ii) by change of money stock (i.e. monetary policy decision). The reason, why this concept is important for monetary policy, is that it provides an estimate of underlying pressures to inflation from the actual money stock and allows to adjust the current monetary policy stance to fulfill its objectives. The monetary policy should not eliminate the GAP^D automatically if it helps to achieve its objectives, e.g. to decrease inflation. Moreover, the monetary policy can deliberately open the gap to fulfill own objectives. On the other hand, this framework is a medium-term approach and it is not sustainable for the monetary policy to keep the gap open over the long horizons.

The equation (4) offers another explanation for the price GAP^D as a combination of the utilization gap ($\ln Y^* - \ln Y$) and the liquidity gap ($\ln V - \ln V^*$) and represents an overall indicator of inflationary pressures from the real economy and from holding of liquidity [3, p. 3-7], [8, p. 2-9].

The fixed exchange rate regime determines the domestic money stock endogenously and the monetary policy deliberately resigns to influence it actively. Because of this, the amount of money fits the actual domestic price level and the GAP^D tends to close relatively fast. The medium-term disequilibrium can still exist because of several rigidities or shocks, but is adjusted by endogenous economic mechanisms and mostly by money stock adjustments, not the price level changes. But it doesn't mean that the economy has no anchor for the price level and the long term price level P^* doesn't exist. As can be expected intuitively, the price level is set abroad in the big economy to which the exchange rate is fixed [6, p.14-15]. This foreign-based price level can be expressed by following identity:

$$P^{D*} = SP^{f*} / Z^* \quad (5)$$

$$GAP^F = p - p^{D*} \quad (6)$$

where P^{d*} is the domestic P^* price level and GAP^F the respective gap, called as a foreign price gap. S represents a nominal exchange rate, Z^* a real exchange rate trend and P^{f*} the trend price level in the foreign economy [3, p. 3-7]. It's definition is the same as in the relationship (2).

The reason we adjust the foreign price level by the nominal and real exchange rate is that the nominal exchange rate just recalculates P^{f*} , which is denominated in the foreign currency, into domestic one. Exchange rate depreciation causes pressures for domestic inflation to increase and vice versa.

The real exchange rate trend trajectory reflects the productivity differential (Balassa-Samuelson effect in particular) between two economies and is mostly driven by the structural characteristics. Because of it, if the economic growth in emerging markets is boosted by fast productivity increases, it can be a source of inflationary pressures in fixed nominal exchange rate regimes.

The GAP^F exists in the flexible exchange rate regime, too. But it is autonomously closed by exchange rate movement with minimum impact to inflation. Under the fixed exchange rate, the only way is by the inflation growth.

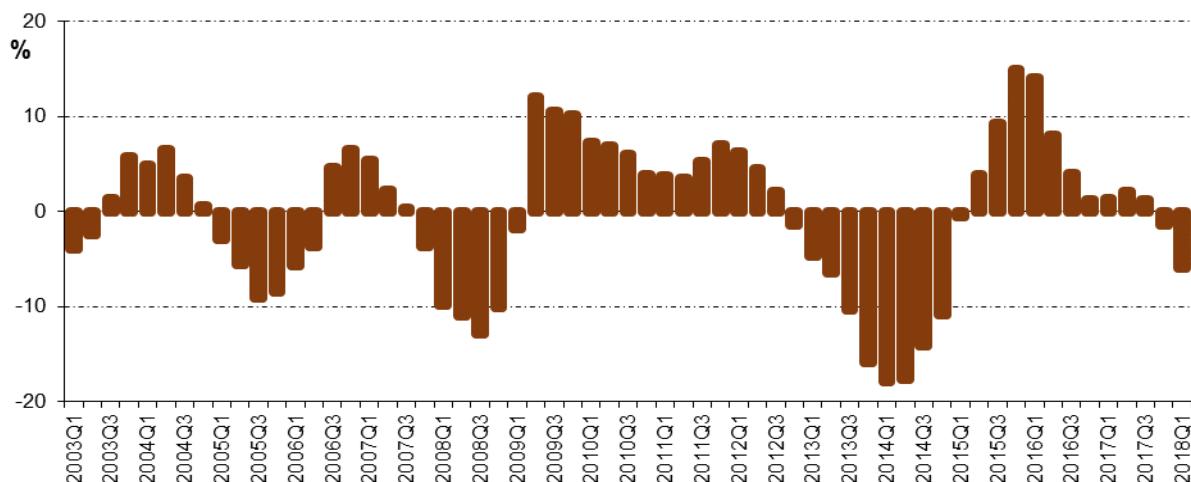
RESULTS AND DISCUSSIONS.

Both approaches to the P^* price level need to be considered for small open countries as Moldova. There are three reasons: (i) the exchange rate regime is neither free nor fixed, i.e. the managed exchange rate. (ii) tradable prices are set on the world market and domestic producers can't influence them significantly. Nontradables are driven by productivity differentials. (iii)

because of many rigidities and time lags in the transmission mechanism, there is always room for price adjustment based on both gaps.

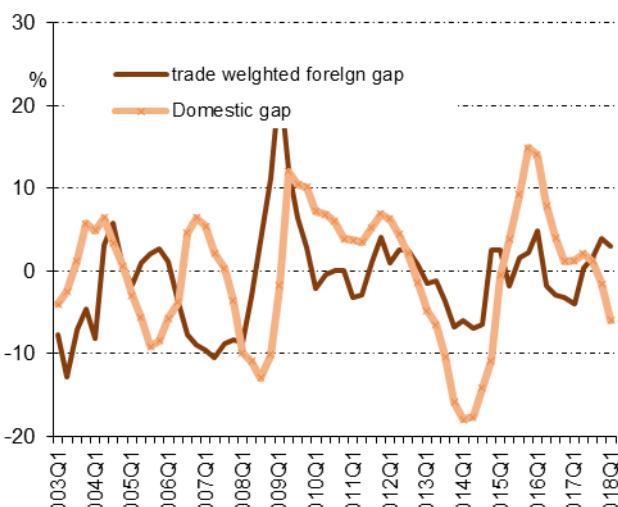
Following the theoretical concept above, we estimated the domestic P^* price level and the foreign one. The GAP^D is based on the quarterly seasonally adjusted data for the real GDP, M2 and CPI, where the source for CPI and real GDP is the National Bureau of Statistics, National Bank of Moldova for M2. Hodrick- Prescott filter was used for detrending the time series [5, p. 5-6]. The estimation of the foreign gap GAP^F is a weighted indicator of Moldova's main trading partners - Eurozone and Russia. Data was obtained from local reserve banks and statistical offices (CPI, real GDP, M2) and detrended by Hodrick-Prescott algorithm [7, p.16-19].

Figure 1 presents the evolution of the domestic gap GAP^D starting from the 1st quarter of 2003 till 1st quarter 2018. The positive gap, according to the above mentioned methodology, indicates periods with tight monetary policy and anti-inflationary pressures.



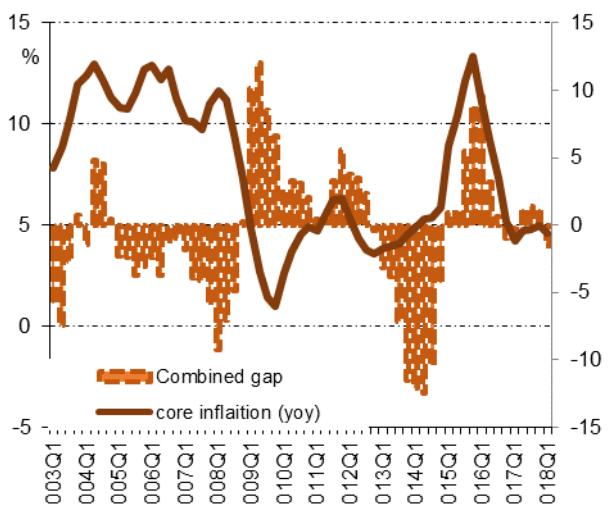
Source: author's calculations

Figure 1: Domestic GAP and trade weighted foreign GAP



Source: author's calculations

Figure 1: Domestic GAP and trade weighted foreign GAP



Source:NBS, author's calculations

Figure 2: Core inflation (yoY, %) and the combined GAP

Next figure (nr. 2) compares the domestic and

foreign based P* gap. It shows that these have different signs and intensities over history. In other words, in some periods there can be strong inflationary pressures from domestic factors while negligible or even disinflationary pressures from foreign factors. Therefore it makes sense to use a combination of the two indicators and to see its behaviour along with the domestic inflation. The information from figure nr. 2 and 3 reveals that both gaps were strongly negative in 2014 denoting that the price level is much lower than the equilibrium one. Consequently, in 2015 there was a spike in the core inflation rate. The positive gaps in 2015 were followed by a sharp disinflation in 2016. So, there is a lag between a change of the monetary policy stance and respective inflation movements. The last observations reveal a mild negative combined gap and, as a result, we could conclude that over the medium term there are some pre-conditions for acceleration of the core inflation. Of course, the link between this GAP indicator and inflation is weakened by many supply shocks, which are common for Moldova. However, one can still depict some important patterns given this data.

Additional work must be done in order to test the significance of the domestic gap, foreign gap and the combined version of them on the core inflation. Although the simple analysis mentioned above support the idea of the P* gap usefulness as a leading indicator for the core inflation, the strength and significance of its pass-through needs to be further tested. This can be done using the estimation proposed by Kool and Tatom (1994) and further developed by Frait et al. (2000) and Pranskeviciute and Sperberg (2005) [7]:

$$\Delta\pi_t^{core} = \alpha_0 + \alpha_1 GAP_{t-1}^D + \alpha_2 GAP_{t-1}^F + \alpha_3 \Delta\pi_{t-1}^{core} + \alpha_4 \pi_{t-1}^{core} + \varepsilon_t$$

Where: π^{core} - core inflation

GAP – the corresponding equilibrium price gap [5 , p. 4-8].

CONCLUSIONS.

This article tried to explore an additional approach in the assessment of inflationary pressures for the medium term horizon. This is important for decision makers in order to be able to adopt the necessary policies in order to ensure price stability. The main objective of this study was to test if the current deviation from the current prices and the equilibrium ones can be used to explain and forecast inflation. After collecting and processing the relevant time series, the conclusion was that both domestic and foreign price gaps contain important information about current and future inflation dynamics in Moldova. This result is sustainable with our expectations and with the theoretic assumption that the economic situation in a small open economy such as Moldova is significantly influenced by the economic processes which take place at our major trading partners.

The two versions of the GAP which used domestic data and foreign data revealed that the core inflation dynamics in Moldova can be explained to a certain extent by the above mentioned variables. Another important issue which was accomplished within this process was the proof that the short-run dynamics of inflation denotes the features of moving towards long-run equilibrium. Additional research must be performed in order to measure the significance of these gaps on the core inflation dynamics.

The combined gap recorded relatively low negative values during the beginning of this year and therefore it is expected that it will exert a small pro-inflationary influence on the core inflation levels in the medium term. However, given the high base effect from the last year and the expected downward path of regulated prices, we expect a decreasing path of headline inflation during 2018 under the assumption that there will not be any other severe supply shocks such as a bad harvest or a spike in oil prices. Considering the fact that the National Bank of Moldova started to implement the inflation targeting regime, we believe that this research can be used as an additional tool for

forecasting inflation and in the monetary policy decision making as a relevant source of information regarding the evolution of the price level.

REFERENCES:

1. K.H. Todter, 2002, Monetary indicators and policy rules in the P-star model, Economic Research Centre of the Deutsche Bundesbank.
2. Scheide, Joachim and Mathias Trabandt. 2000. Predicting inflation in Euroland - the P-star approach, Kiel Institute of World Economics.
3. Frait, J., L. Komarek, and L. Kulhanek. 2000. P-star-model based analysis of inflation dynamics in the Czech Republic, Warwick Economic Research Papers, (ISSU 565), URL <http://www2.warwick.ac.uk/fac/soc/economics/research/papers/twerp565.pdf>.
4. Kole, L. S. and M. P. Leahy. 1991. The usefulness of p_- measures for Japan and Germany, Board of Governors of the Federal Reserve System, International Financial Discussion Papers, (414).
5. Garcia-Herrero, M.V. Pradhan, 1998, The domestic and Foreign Price Gaps in the P-Star Model: Evidence from Spain.
6. Kool, Clemens J. M. and John A. Tatom. 1994. The P-star model in five small economies, Federal Reserve Bank of St. Louis, Review, (May), 11–29
7. Pranskeviciute, J. and A. Sperberg. 2005. An investigation into the dynamics of inflation in Latvia: The P-star approach, SSE Riga Working Papers, (10), URL http://www.sseriga.edu.lv/library/working_papers/FT_2005_10.pdf.
8. Wesche, Katrin. 1998. The P-star model and monetary integration in Europe, Institut fur Internationale Wirtschaftspolitik Universitat Bonn, URL <http://www.iiw.uni-bonn.de/Files/Publikationen/Pstar.pdf>.

SECTIUNEA VII: **Ştiinţe juridice. Ştiinţe politice şi administrative**

COMPARATIVE ASPECTS OF THE PUBLIC PROCUREMENT PROCESS VIEWED AS GOOD IMPLEMENTATION PRACTICES FOR THE NATIONAL LEGAL FRAMEWORK OF PUBLIC PROCUREMENT IN THE REPUBLIC OF MOLDOVA

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Abstract. Efficient European practices in the field of public procurement have been analyzed more and more for the purpose of transposing them to the realities of the Republic of Moldova in order to develop public procurement. The concepts of practices in some EU countries, such as Norway, France, Estonia, describe clear directions for organizing an efficient procurement process. They implement the provisions of the European Public Procurement Directives, which came into force in 2014. Transposed into the national legislation of these countries, the directives have been harmonized at the highest level of efficiency and transparency. The theorists, but especially the practitioners in these countries, have exposed some analyzes regarding the implementation of public procurement within the national legal framework of the respective states. Thus, the national legal framework of the Republic of Moldova can be linked to good practices and public procurement. This research is based on an analysis of European public procurement practices in several European countries. Thanks to some research methods such as observation, comparison, analysis, we conclude that in some European states, theoretical and practical peculiarities of public procurement serve as good examples for the local practices of public procurement. The results obtained will serve as bases for continuous improvement of the respective domain, in the context of the European integration of the Republic of Moldova.

Key words: public procurement, good practices, European directives, comparative aspects, national legal framework.

JEL CLASSIFICATION: K34

INTRODUCTION.

In the context of the Republic of Moldova's efforts toward greater integration in the EU, the harmonization of public procurement legislation and its implementation, and credible enforcement, has a particular importance from the point of view of: commercial relations (eg opening of the market for non-indigenous people is a significant element in encouraging trade); Achieving greater competition for secondary markets - which is about supplying raw materials, expertise, products, labor, to indigenous suppliers offering it and winning auctions; higher value for public money (largely from competition, lower prices and economies of scale); avoiding corruption (through a transparent and accessible process); increasing investors' confidence in the economy of the Republic of Moldova and strengthening the economic growth potential (especially in the small and medium enterprises sector).

MATERIALS AND METHODS.

Thanks to some research methods such as observation, comparison, analysis, we conclude that in some European states, theoretical and practical peculiarities of public procurement serve as good examples for the local practices of public procurement. The results obtained will serve as bases for continuous improvement of the respective domain, in the context of the European integration of the Republic of Moldova.

RESULTS AND DISCUSSIONS.

This research is based on an analysis of European public procurement practices in several European countries. In this way, Norway is a state whose legislation has transposed the provisions of the new European directives on public procurement. Thus, as regards procedural rules, there is a public complaints committee ("KOFA") dealing with complaints received in the area of public procurement in accordance with the Complaints Board Regulation. Norwegian law has been revised to simplify and harmonize national legislation with the EU, including the implementation of new EU directives. Thus, the national legislation came into force in April 2016.

Regarding other areas of national law, such as government transparency rules that are relevant to public procurement, we can mention that the Freedom of Information Act contains rules on public access to public documents, including procurement documents and suppliers' [6]. Until the decision is taken definitively, there is no information on the participation of the tenderers or their tenders, which may be disclosed by the contracting authority. Subsequently, anyone requesting access to documents connected to public procurement procedure, has this access, with certain exceptions, such as sensitive information commercially undisclosed.

So, from Norway practice on developing public procurement we can clearly deduce free access to public procurement contracts archived, available also in media. So we can emphasize the idea and the opportunity to adopt legal mechanisms through which civil society and the media can get access to certain parts of the post-factum acquisition dossiers. However, the Norwegian practice, in smooth operation of law, principles are viable as "priority value of money", "equal treatment", "transparency". The main objective of national procurement law is to ensure efficient use of public authorities resources and ensure that contracting entities act with integrity throughout the procurement process [4].

The legislation states explicitly that equal treatment, non-discrimination, transparency and proportionality are fundamental principles relevant to the interpretation of legislation. These broad requirements largely correspond to the principles of EU procurement directives [6].

As the Norwegian acquisition scheme is based on the principle of equal treatment and non-discrimination, buyers should ensure a level playing field for all suppliers, wherever they are. As EU procurement legislation, purchasers should therefore refrain from setting discriminatory criteria for participation or in technical specifications or in other ways to discriminate against providers established in other jurisdictions. In addition, the requirements for bidding advertising provide suppliers outside of Norway with access to bid information.

There are special rules for concluding the negotiated procedure. Buyers may enter into framework contracts that are subject to their rules that comply with EU directives. For contracts with an estimated value below EU thresholds, but above the national threshold, the buyer has more flexibility when awarding disputes under the framework agreement [6].

There are also special rules for dividing contracts into lots. The contracting authority is free to divide a purchase into lots when there are rational reasons for doing so. The new directive imposes rules that are implemented in Norwegian law, with the contracting authority being obliged to consider splitting the contract into lots, which allows small and medium-sized enterprises to compete.

Very often, in Norway, the public procurement procedures describe the following award procedures: *open procedure; restricted procedure; negotiated procedure and competitive dialogue*. Contracts subject to Regulation, with an estimated value greater than EU thresholds, are granted, as a rule, after an opened procedure or a restricted procedure. The negotiation procedure and competitive dialogue are only available if they met certain conditions.

Bid evaluation rules: Bidding and evaluation of bids are based on objective criteria. On the bases of these evaluation criteria, the contracting authority has a wide discretion in assessing the tenders. In any case, the assessment should respect the fundamental principles of the strategy.

Contract award rules: The contract award rules are aligned with EU procurement law. The contracting authority may choose any of them - award based on the lowest price or the economic one, the best offer. Following the entry into force of the revised rules in the spring of 2016, the rules

on contract award were harmonized with the new EU directives. Thus, the contracting authority, assign it contractually based on the lowest price, the lowest cost or cost-effective approach.

Rules for debates unsuccessful bidders: "Rubbish" bidders will be informed about the result of the tender contract, and the contracting authority shall give reasons for contract award. For joint procurement, contracting entities may acquire joint contracts and they may set up a central purchasing system.

Rules about offers alternative/alternatives: Alternative tenders are accepted only if the contracting authority ATEA mentioned explicitly in the notice, that it is allowed alternative for staying away.

Approach to public procurement in France. The French legislation relevant to public procurement is currently composed by the French Public Procurement Code and the Ordinance of 23 July 2015 on contracts concluded by public or private entities and excluded from the scope of the French Public Procurement Code and its decrees of application. However, European public procurement rules have recently been revised and upgraded by the European Parliament and the Council. Therefore, the new directives have been adopted at European level and transposed into French law.

It should be noted that the French Government Procurement Code and the Government Ordinance transpose EU directives, so the rules laid down by the French procurement law are aligned to ensure that they comply with the directives [2].

Several fundamental principles are relevant for the interpretation of legislation: for example: The equal access to public procurement, equal treatment of candidates (non-discrimination) and transparency of procedures (efficient use of public funds and the efficiency of public procurement); the principles of the Treaty on the Functioning of the European Union, namely the free movement of goods, the freedom of establishment and the freedom to provide services; and other principles deriving therefrom, namely proportionality, participation of small and medium-sized enterprises in public procurement, etc.[7].

The French Code on Public Procurement and the Order of 23 July 2015 refers only to public contracts which are defined as contracts for pecuniary interest concluded in writing between one or more economic operators and one or more contracting authorities and which object execution of works, supply of goods or provision of services.

The French Public Procurement Code doesn't impose specific obligations for contracting authorities in the relation to suppliers established outside jurisdiction. However, the new Regulation of 23 July 2015 provides that purchasers are to grant suppliers of GPA States (or suppliers of States Parties to any international agreement equivalent to which the EU is a party) the right to participate in procurement procedures in conditions similar to those in EU countries.

The French Public Procurement Code sets strict rules on the choice of method used by contracting authorities to calculate the estimated value of a procurement and, in particular, prohibits contracting authorities from preventing a particular acquisition from falling within the scope of the Code, relying on the estimated value of a purchase given on a subdivision of the acquisition.

The purpose of these special rules is to prevent contracting authorities from exempting the law. The French Procurement Code provides for a definition of framework agreements, together with specific rules on framework agreements. These rules mainly aim at reopening competition between the parties to the framework agreement [7].

Several types of award procedures are currently available: *the open tender procedure* where any interested economic operator can submit a tender. Negotiation with bidders is forbidden. The procurement contract will be awarded to the tenderer who submitted the best tender, identified on the basis of criteria defined by the contracting authority.

In the case of *a restricted tender procedure*, an interested economic operator should submit a request for participation. After that, only the economic operators invited to do so by the contracting authority (based on their request for participation) may submit a tender. Negotiation with bidders is

forbidden. The public procurement contract is awarded to the tenderer who submitted the best tender identified on the basis of criteria defined by the contracting authority.

Regarding *negotiation procedure*, we can mention that the contracting public authority negotiate with the bidders. Contracting authorities may only apply a negotiated procedure in specific cases and circumstances (for example, if only unlawful, unacceptable or inappropriate auctions have been submitted as a result of a tender procedure).

Competitive dialogue procedure: Any interested economic operator should submit a request for participation. After that, only the economic operators invited to do so by the contracting authority (based on their request to participate) may submit a tender and may participate in the dialogue with the contracting authority. The dialogue aims to determine or develop the solution appropriate to the needs of the contracting authority, and contracting authorities may apply a competitive dialogue procedure only in the case of a complex public contract.

Project competition procedure: Any interested economic operator should submit a request for participation. Bids are evaluated by a jury and the contracting authority selects the winner (s) who are invited to negotiate.

Dynamic procurement procedure: Businesses are selected to participate in a dynamic purchasing system (based on indicative tenders and an open tender procedure). All admitted participants are invited to submit a final bid, and the dynamic procurement procedure is an electronic procedure for consumables or supplies [7].

Appropriate procedure: The rules and procedures for the procurement procedure are defined by the contracting authority; in particular, the contracting authority may provide for the negotiation with the tenderers. Contracting authorities may only launch an appropriate procedure for public contracts the value of which is estimated to be lower than the thresholds laid down by the relevant legislation or for specific public service contracts (eg public or social service contracts).

The French Public Procurement Code provides for exclusion rules for bidders (for example, if the bidder fails to meet his tax or social obligations or if the bidder has been convicted for certain offenses). It is interesting to note that the new Ordinance of 23 July 2015 on public contracts introduces optional exclusions. Contracting authorities may exclude an economic operator from participating in a procurement procedure (eg in cases of non-performance of obligations during the execution of a prior public contract, a conflict of interest or an anti-competitive agreement).

Tenders will be evaluated in accordance with the award criteria of the contracts covered by the invitation to tender or the procurement documents. These award criteria should be linked to the subject matter of the public contract and must not be discriminatory [7].

Each public procurement contract is awarded to the most economically advantageous tenderer (determined on the basis of the award criterion). Prior to the conclusion of a public procurement contract, the contracting authority must inform each rejected tenderer of the rejection of its tender and the reasons for such rejection. Moreover, the contracting authority is obliged to inform each tenderer who has failed to obtain the name of the successful tenderer and the reasons why his tender has been selected.

The new Ordinance of 23 July 2015 allows contracting authorities to exclude an economic operator from participation in a procurement procedure, in particular where such participation creates a situation of conflict of interest.In addition, the French Criminal Code deals with conflicts of interest. It should be noted that the scope of the exclusions was modified by the new Ordinance of 23 July 2015 (in particular, some legal services, such as document certification and authentication services, public service or public services railway transport is no longer included in the scope of public procurement legislation).

Approach to public procurement in Estonia. Estonia is one of the smallest European Union member states with a high centralized system of government. Government was responsible for about 70% of all public expenditure in 2013 and 2014 and, therefore, most of the national procurement law [3, 136].

The legal characteristics of the public procurement system. Public procurement in Estonia is governed by the Public Procurement Act transposing European Directives and regulating the procurement process for goods, services and public works contracts. The value of contracts which are higher than EU thresholds are managed in accordance with EU procedures and may use open or restricted procedures, competitive dialogue and negotiated procedures, with or without publication.

E-procurement. Estonia is one of the most advanced Member States in terms of e-procurement. Electronic notification has been mandatory since 2001 and compliance is actually 100% for contracts over EUR 10,000 for goods and services and EUR 30.00 for public works. The issue is partly mandatory because contracting authorities must allow at least 50% of public procurement to be issued. Implementation of e-procurement has evolved rapidly in recent years, with an increase from less than 5% in 2011 to 72% in 2014, exceeding the national target of 50% [8].

The rapid development of e-procurement is based both on comprehensive e-procurement and on the widespread dissemination of e-procurement between contracting authorities and economic operators through actions, guidance and awareness-raising training. In fact, the e-procurement portal Estonia's highly developed e-procurement is often mentioned as examples of good practice for other Member States as they are quick and easy to use. Register is free for all contracting authorities and suppliers, and provides a full range of services e-procurement, including e-notification, electronic access and electronic transmission.

The e-Procurement Portal also offers a wide range of information and updates on all aspects of e-procurement. In addition, it produces data on the use of e-procurement in Estonia and a wider overview of the Ministry of Finance's work on public procurement.

The development of electronic procurement in Estonia is also supported by comprehensive guidance and training for both contracting authorities and economic operators. At the disadvantage of widespread use of e-procurement and transparency, the *risks of corruption* are still present. The problem is limited at the state level. However, public procurement at the local level is more vulnerable to corruption [1].

The Estonian anticorruption strategy for the period 2013-2020 is largely focused on increasing transparency in public sector decision-making. In this respect, the continued development of the e-procurement environment and the ability it creates for data collection and analysis are a key function. In addition, since 2013, many types of financial data of the local authorities in Estonia, including acquisitions, have been made available through a request on line [8].

The Europe 2020 strategy. The Estonian National Reform Program declares the Government's intention to use the public procurement process to promote secondary policy objectives within the Europe 2020 strategy, but the specific objectives and means are not developed. The main document of strategy is the plan "Better use of environmental management and environment in the public sector".

To encourage innovation in Estonia, Government has allocated 20m euros for the "Smart Consumer" initiative. Funding will be used to raise awareness among contracting authorities of how they can adopt a more innovation-friendly approach to auctions, including through counseling, training and networking between innovators and suppliers. In addition, Estonia 2020 strategy sets a number of objectives of innovation related procurement, including increasing the participation of universities, business start-ups and applied research in public procurement contracts and the growth of incorporating innovation to 3% by 2020 [2].

The political priority for Estonia's short-term purchases is the transition to a fully digitized procurement process. This move should lead not only to significantly reduce time and costs for contracting authorities and tenderers, but also for improving Government to collect and analyze performance data for monitoring and policy development. Another key objective, as set out in the Anti-Corruption Strategy 2013-2020, is to increase transparency in Government in general and in procurement specifically. An essential step in this process will be to strengthen the disclosure requirements for conflicts of interest and enforcement measures.

So, we emphasize that Estonia's most powerful attraction is the highly developed electronic procurement platform that offers the full range of services in an efficient and user-friendly

environment. The early adoption of digital services has also been a major factor in strong efforts to oversee and fight corruption [5].

CONCLUSIONS.

By the critical analysis described above, we want to highlight the most important aspects of the public procurement process in some European countries that could serve as EU best practices in the field of public procurement for the Republic of Moldova.

Thus, the strengths in the practice of the states mentioned before, were highlighted that could be transposed into the Republic of Moldova's procurement practice. As a conclusion in this respect, we have identified Estonia as the first in the EU in the field of e-procurement. This practice should be taken over and it is possible to proceed in the context of Moldova.

From Norwegian practice, we clearly conclude the possibility and free access to archived contracts in the field of public procurement that are available to the media. So we can emphasize the idea and opportunity of adopting legal mechanisms through which civil society and the media can gain access to certain parts of the post-factum acquisition dossiers.

The French Public Procurement Code bases the regulations in place, transposing the provisions of the European Public Procurement Directives - a practice that could have a positive impact on our state.

In the Republic of Moldova, responsibility for harmonizing public procurement legislation belongs to the Public Procurement Agency. This works at full capacity to achieve efficiencies and continue approximation [5]. The introduction of framework agreements, increased independence for the review body, more frequent electronic procurement, all constitute the areas of continuous change and refinement.

REFERENCES:

1. Guide. Anti-fraud measures on public procurement in the single market of the European Union. Legislative, institutional and technical solutions (Expert-Forum Report, included in the EU-Eurasia Report: Public Funds, Rule of Law and Real Economy, published by EFOR in the Community Good Governance: open think-tank to the EEA-funded public opinion 2009 - 2014, within the NGO Fund of Romania). 28 p.
2. Richer, L., Cantillon, G. *Achat public et économie des territoires*. Paris: Ed. LGDS, 2017.
3. Veiko, L., Rainer, K., Tarmo, K. *Guide Public Procurement. Innovation and Policy*. Tallinn: 2014, p. 136.
4. EU public procurement http://ec.europa.eu/internal_market/publicprocurement/docs/modernising_rules/reform/fact-sheets/fact-sheet-10-transparency_en.pdf (visited on May 16, 2017).
5. The Public Procurement Agency of the Republic of Moldova, which ensures the implementation of state policy in the field of public procurement. www.tender.gov.md (visited on 10.04.2018).
6. Public Procurement in Norway https://www.kvale.no/globalassets/pdf-publikasjoner-fagomrader/eueos-og-konkurranserett/pp16_chapter-23_norway.pdf (visited on 11.04.2018).
7. Public Procurement in France (responsible Guillot Y.-R.). http://www.earthavocats.com/fichier/PP16_Chapter-13_France.pdf (visited on 12.04.2018).
8. Public procurement - Study on administrative capacity in the EU Estonia Country Profile http://ec.europa.eu/regional_policy/sources/policy/how/improving-investment/public-procurement/study/country_profile/ee.pdf (visited 14.04. 2018).

PUBLIC HEALTH SERVICE IN THE REPUBLIC OF MOLDOVA: FROM INDEPENDENCE TO THE PRESENT

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Abstract. The Moldovan health care system has undergone significant reform since the country declared independence from the Soviet Union in 1991, although the health reform program was delayed for a number of years owing to the severe fiscal difficulties faced as Moldova embarked on political, economic and social transition. However, despite the limited resource base, real progress has been made in rationalizing the health care system and reducing the dominance of inpatient care through the restructuring of hospital stock; stabilizing health care financing through the successful introduction of mandatory social health insurance, which was also successful in reducing the level of informal payments in the system; and developing primary health care based on family medicine. Thus, to walk towards a future where health is one of the main objectives to achieve and maintain it is empirical to know the past, mainly the way public health services evolved in the Republic of Moldova from the declaration of independence.

Key words: health, service, independence, evolution, improvement

JEL CLASSIFICATION: K34

INTRODUCTION

The realities of the contemporary world clearly demonstrate that services play an important role in the economic and social life of developed countries. There has been such an important development that a number of specialists have called the twentieth century, "service century", and the current stage is a transformation into a civilization of services.

Of all the variety of services, the public ones are delimitated to cover the needs of the citizens of a country. These are activities of general interest assumed by public bodies, exercised continuously, correctly, and as effectively as possible. There are a multitude of public service classifications, depending on a number of criteria. These include the health and social care service.

Public health is the result of efforts to achieve a high level of physical and mental well-being of a community or nation, also representing a summation of the health of individuals in the reference population. It has a mission of general interest, ensuring that every citizen has equal access to the medical service on a continuous basis.

Although in the beginning, health was more of an individual problem, with the development of civilization this aspect has changed, becoming a complex concern, which concerns the entire society. For a fast and efficient civilization to develop, a healthy, long life of mankind is needed.

To familiarise with this area, it is necessary to present health as a public service, with specific provisions and functions. In this regard, the author presents in this article the history, the current situation and future solutions for the improvement in this field in the Republic of Moldova, using scientific research methods such as historical, comparative, and statistical methods, and studying the Reports of the National Bureau of Statistics of the Republic of Moldova, the opinion of some doctrinaires on the state of the health system in transition countries, and the reports of World Health Organization, as the main sources.

POST-SOVIET HEALTH SERVICES

As soon as the Republic of Moldova declared independence from the former USSR in 1991, new socioeconomic conditions which threatened health status were created. However, significant steps were also taken to allow for the reform of the health care system. The implementation of reform was to be facilitated by the introduction of new health legislation.[2,pag.10]. This envisaged:

- introduction of health insurance ;
- private sector development;

- prioritization of primary health care and organization of a general practitioner/family physician-led service;
- enhanced family planning services;
- reorganization of health service administration and financing;
- improvement of medical education.

The Moldovan system is thus empowered to undertake extensive and far-reaching reforms when economic circumstances permit. Given the prevailing conditions, there has been a conscious targeting of effort. The main priorities are currently to maintain the health care system at an appropriate level: to enhance health care delivery and to improve the health status of the population. The reform processes and pilot projects are intended to support these priorities.

Since its independence Moldova has been in transition from a centralized political and economic system to a more democratic and market-oriented system. The collapse of the USSR brought severe economic and social problems while at the same time creating opportunities for progress. GDP decreased by more than 60% between 1991 and 1999 and in 1997 it was calculated that 90% of the population were living on less than US \$2 per day and 21% living on less than US \$0.50 per day, less than 30% of the national minimum subsistence level.[3] At the same time health indicators were worsening. The health system found itself both unable to provide adequate, consistent and affordable basic health care or to sustain the enormous provision of specialist care that it had been designed around and that was drawing funds away from the basic care level. A number of preventive programs, such as the national immunization program, were on the verge of collapse in the early 1990s. Increasing informal charges had deterred many from attending health facilities at all. The inherited system was highly centralized and planning was designed around funding bed numbers in special facilities with little real opportunity for effective local level planning.[5]

Although there was concern about political and social implications of reducing capacity, the government realized that health reform had become a pressing issue.

After the declaration of Independence of the Republic of Moldova in 1991, there were a series of transformations in the country's economic and social life, transformations that also had an impact on public health and health management. The new state has "inherited" a series of illnesses due to working conditions, inadequate environmental status, which increased in the coming period due to the socio-economic decline.

At independence, Moldova was faced with a health system with numerous facilities and staff but few resources to sustain them. Despite some reductions in capacity, in 1997 Moldova had one of the most extensive networks of health facilities and health staff in either Western Europe or the countries of the former Soviet Union [5]. It attempted to maintain this high level of provision despite the collapse of the economy in the early 1990s. The economy, along with an emphasis on tertiary care in the health system and little awareness of preventive health measures in either the health profession or the general population has meant that the Republic of Moldova faces many health system challenges.

The public health system in the Republic of Moldova was represented by the National Health System until 1992, characteristic of the socialist economic system that went bankrupt due to the economic reforms (privatization, insufficient budget financing) and because of the low remuneration offered to doctors and other employees, with an incorrect correlation in terms of volume and quality of medical services. The National Health System had a planned aspect, integrating medical programs into social economic development plans, through public state administration at central and district level, actions determined by the then central power.

Following the formation of the independent state of the Republic of Moldova, a number of transformations were made in all areas. Regarding the system of organization of medical assistance, the technical and material basis from the point of view of equipment, the medical equipment and devices remained the same but with a high degree of deterioration. The decrease in the number of hospitals started in 1998-1999 by the liquidation of the district hospitals and their transformation into health centers mainly in the rural sector.

For a better understanding of the public health situation in the Republic of Moldova, the author analyzed some basic health indicators. Thus, according to a press release of the National Bureau of Statistics of the Republic of Moldova dated August 22, 2008, the life expectancy at birth in 2007 was 68.8 years, compared to 68.4 in 2006. Decreasing the mortality, infant mortality and the stabilization of the general mortality rate of the population has exerted a positive influence on life expectancy at birth. If in 1995 (year with the minimum value of the indicator in the last 26 years) this indicator was 65.8 years, then since 1996 it is increasing and in 2007 it was 68.8 years, in males - 65.0, in women - 72.6 years (recording the maximum value in the same period). One of the most worrying manifestations unfavorable to demographic development in the country is the increase in population mortality. In 2000, 41.2 thousand people died, reaching a peak in 2005 of 44.6 thousand persons, but reaching in 2007 a number of 43.05 thousand people.[6]

As regards the maternal mortality, it is decreasing, but it is at a very high level compared to other European countries, reflecting the quality of the healthcare system as a whole, but also its degree of orientation towards the needs of the mother and the child: access to specialized care, reducing the risk of pregnancy and childbirth, improving the general health of the mother and the child, and, by extension, the social and economic status of women. The relatively high level of maternal mortality in the Republic of Moldova is caused by a complex set of socio-economic and medical factors, the main ones being unemployment, inadequate labor conditions of women, domestic violence, morbidity, abortions, etc.

In the government's work programs, it was primarily intended to maintain the free healthcare system guaranteed by the State, but it was created under the same conditions of gradual transition to medicine through insurance and the private services. However, it should be noted that the principle of gratuitousness and free access was not respected. This situation necessitated the elaboration of a new concept of reforming the health system in the Republic of Moldova during the period 1997-2003, approved by the Government of the Republic of Moldova by Decision no. 668/17 July 1997. The essence of this strategy for the development of the health system was the implementation of a policy that ensures the full access of the population to quality medical services based firstly of all on primary medicine. New legislative and normative acts have been developed, national programs with a special purpose for the phased implementation of a new public health system.

In cooperation with the National Health Organization, the Government of the Republic of Moldova promoted the National Health Policy, drafted in 1997. In accordance with its principles, the "Moldovan Law on Obligatory Medical Assistance" was adopted on 27.02.98. According to this law, the compulsory health insurance is a state-guaranteed system, protecting the public's interests in the field of health care. This is done by setting up, on the basis of insurance premiums, cash funds intended to cover the costs of treatment of situations conditioned by the occurrence of insured events. The amount of healthcare provided under compulsory health insurance is provided in their Single Program, which lists the diseases and conditions requiring medical assistance funded by these means.

The health system of the Republic of Moldova has shown a great capacity for change over the past 20 years. The common goal of improving the health and well-being of the population needs to be sustained and fostered by the government and the whole of society. As the development of action and policy for health continues in the country, it is vital that there is a close alignment with the approaches and concepts described in Health 2020: the European policy for health and well-being (the WHO policy framework supporting action across government and society for health and well-being). While there is work to do to bring the health status of the population up to be among the best in the WHO European Region, substantial progress is possible when all sectors coordinate their work.

THE PERFORMANCE OF THE HEALTH SYSTEM.

Although a number of reforms have been made in the sector over the last decade, the proportion of system funding is below the 1990s. The main health indicators of the population have undergone some changes compared to the 1990s and are determined by economic, social and

environmental factors. The level of low birth rates and increasing mortality, together with the phenomenon of migration have contributed to a significant decrease in natural growth over the period 2000-2010, returning to zero over the past two years. Infant mortality is steadily decreasing to 9.7 deaths per 1,000 live births in 2015, with the MDG target for 2015 being 13.3 deaths per 1,000 live births. Maternal mortality recorded 31.1 million maternal deaths per 100 thousand live births in 2015 compared to 2014 when 15.5 maternal deaths per 100 thousand children born alive. The main causes of mortality remain cardiovascular diseases and neoplasm, followed by digestive maladies, trauma and poisoning, and respiratory diseases. The share of these five major causes accounts for about 90% of total deaths at national level.[6]

In the past few years, the number of physicians in the sector is rising, 13012 doctors in 2015 compared to 12783 doctors in 2009, but the number of middle-class medical workers is decreasing from 27,449 in 2009 to 24,602 middle- in 2015.

At the same time, the level of insurance with doctors per 10,000 inhabitants is higher compared to the European average, but the degree of the provision of personnel with secondary education is lower than the European average (36.6 doctors per 10,000 inhabitants in the Republic of Moldova) compared to 32.3 / 10.000 inhabitants in the EU and 69.2 / 10.000 inhabitants for medical workers with secondary education in the Republic of Moldova compared to 77.5 / 10.000 inhabitants in the EU). As far as the degree of insurance of the population with family doctors is concerned, there is a difference 4.9 / 10.000 inhabitants for RM (decreasing from 5.4 in 2009) compared to 8.5 / 10000 for the EU. This can serve as one of the factors affecting the access and quality of primary health care services and, as a result, of health. The uneven territorial distribution is manifested by the lack of medical personnel predominantly in rural areas compared to the urban one.[6]

KEY PROBLEMS AND MAIN OBJECTIVES.

The *key problems* and *challenges* that the healthcare system is facing, are:

- Insufficient coverage of the population with compulsory health insurance (AOAM);
- High incidence and mortality due to chronic non-transmissible diseases, increased incidence of mental illness and insufficiency measures to prevent them;
- Unfavorable situation with regard to infectious and parasitic diseases, high incidence of HIV, STIs, tuberculosis and others;
- Unfair access to quality services in primary, secondary and tertiary health care;
- Low efficiency of hospital care providers and duplication of services at secondary and tertiary level;
- The high share of medical institutions with a deplorable infrastructure.
- Major shortage of contemporary regional health technologies for invasive treatment of the disease
- chronic ischemia and its complications (acute myocardial infarction) and stroke;
- The payment mechanisms of healthcare providers are not based on their performance;
- Exodus of specialists and uneven distribution of medical staff.

The *main priorities and objectives* to be set in order to improve our national Health Systems are as follows:

- Promoting and early education of healthy living.
- Adaptation of the legislative and normative framework to the *acquis communautaire*, elaboration and approval of the Health Code as a basic document of the of the health care system.
- Development of integrated health information systems, electronic prescription, approval and implementation E-Health strategy.
- Modernize the state public health oversight service, focusing on regionalization, promoting a healthy way of living, ensuring the protection of the population against health risks.
- Modernization of primary and ambulatory health care, with emphasis on non-communicable diseases, family planning, community services and mental health.

- Development of medical rehabilitation services.
- Strengthen the pre-hospital emergency care service, increase coordination, reduce fragmentation in field.
- Implementation of a behavioral model in the physician-patient relationship, based on trust, mutual respect, participation and collaboration.
- Amplification of the prevention and control of infectious diseases (TB, HIV / AIDS, viral hepatitis) and diseases mediated by immunoprophylaxis.
- Improvement of the mechanism for the clearing of medicines and substantial extension of the list of medicinal products compensated.

In order for all these steps regarding the development of the public health system in the Republic of Moldova to be fruitful, it is necessary to involve all the active factors of society, state structures, the private sector, civil society as well as all citizens as efficiently as possible. Improving the public health sector will have positive effects in other areas of society, leading to the nation's development.

AIMS OF DEVELOPMENT FOR THE PUBLIC HEALTH SYSTEM IN THE REPUBLIC OF MOLDOVA

A new stage towards a good and useful public health system was represented by the Development of Public Private Partnership and private health services in the Republic of Moldova. This was included in the Strategy for the development of the health system in the period 2008-2017 of the country, considering that both the public and private medical institutions are part of a single health system, which have the same tasks - to ensure the health of the population.[10]

The Public-Private Partnership in Health is that the Government or a national medical insurance company contracts with a private partner for the provision of health services to the population and / or a medical institution. The main goals were:

- the use of private funds to build new institutions or equipment (where the state does not have sufficient funds to invest in the public sector);
 - improving the quality of health services;
 - improving people's access to certain types of health services;
 - improving the management and efficiency cost in service delivery.
- the priorities of the Ministry of Health regarding the Development Strategy were:
 - increasing the quality of medical services offered to the population, in line with its expectations and on the basis of a regulated competition;
 - ensuring a fair access of the population to these quality medical services;
 - increasing the efficiency of management and delivery of health services and the responsibility of suppliers for the results obtained;
 - improving infrastructure and medical technologies by attracting private funds additional to those in the public system;
 - motivating and increasing the satisfaction of health personnel by stimulating their involvement in private practice under properly regulated conditions.

Changing and developing the public health system should take into account the opportunities that are emerging in this field and fructified. Some of the improvement proposals in this sector relate to:

- privatizing as many health institutions as possible;
- setting up new medical institutions;
- adopting a number of national programs and laws in the field of public health;
- attracting international funding in this area;
- the establishment of cash funds, based on health insurance, intended to cover expenses for the treatment of conditions conditioned by the occurrence of insured events.

CONCLUSIONS

The Republic of Moldova has just passed 26 years of independence. It has been a time of great challenges for the health system and one that has resulted in a number of changes. Immediately after independence the health system faced both worsening health indicators of the population and severely diminished resources for the health system. The new health reforms are beginning to address some of the pressing issues of the system. At the same time, the picture of the population health is gradually showing improvement. The health reforms have taken some time to develop but are now beginning to focus on using the limited resources available to the best effect. Moldova has started the process of rationalizing the size of its health system, both in terms of numbers of facilities and staff. It has also begun innovative training for health staff in new methods of management and care. Although the health system still has far to go in ensuring equal access to all to a basic level of care, it has started the journey towards meeting this goal.

The health status of the people of the Republic of Moldova is considerably higher when compared with the situation in the 1990s. Even though progress is impressive, there remain challenges in many areas including communicable and non-communicable diseases. Data show that the incidence of tuberculosis and HIV infections is still on the rise. While premature mortality from non-communicable diseases is decreasing rapidly, the levels are still very high, especially for diseases of the digestive system.

To improve and protect the health of the whole population of the Republic of Moldova, a concentrated effort will be necessary on the part of individuals, families, civil society, the private business sector and the government. Health is everyone's business and the whole-of-government and whole-of-society approaches are essential. Even though the Republic of Moldova has shown good progress in improving the health of the population in recent years, this momentum must be maintained as such an improvement benefits all sections of society.

Overall, the Republic of Moldova has made substantial progress in improving the health of its population, but numerous challenges remain. For the country to sustain and accelerate its progress towards the Health 2020 goals, it will need to continue involving all of society and the whole government in the effort to improve and protect the health of the population. By adopting this approach, the Republic of Moldova will move towards a healthier future for all in 2020 and beyond.

REFERENCES:

1. Stănciulecu, G., "Managementul utilităților publice", editura Uranus, București, 2002
2. World Health Organization , "Health Care Systems in Transition Republic of Moldova", 1996 (<http://apps.who.int/iris/bitstream/handle/10665/108393/E72469.pdf;jsessionid=8BEEC377A0E44E7BF1923606440FD45D?sequence=1> vizitat 25.04.2018)
3. WORLD BANK, *World Bank Project Appraisal Document*. 2000, Ministry of Health: Chisinau
4. UNDP, *Moldova National Human Development Report*. 1998, UNDP: Chisinau.
5. Laura MacLehose "Healthcare Systems in Transitions: Republic of Moldova", European Observatory on Health Care Systems, 2002 (http://www.euro.who.int/__data/assets/pdf_file/0006/95163/e81265.pdf vizitat 25.04.2018)
6. Rapoartele Biroului Național de Statistică din Republica Moldova, domeniul Ocrotirea Sănătății , <http://www.statistica.md/category.php?l=ro&idc=198&> (vizitat 25.04.2018)
7. Politicile Ministerului Sănătății cu privire la PPP în sănătate 9 februarie 2009 Ghenadie Țurcanu, șef DAMEP, MS, (http://old.ms.md/_files/3303-Politicile%2520MS%2520privind%2520PPP%2520in%2520sanatate%252009%252002%25202009.pdf vizitat 25.04.2018)
8. World Health Organization, "Highlights on Health and Well-being Republic of Moldova", 2016 (<http://ccm.md/uploads//Rapoarte/Highlights%20on%20Health%20and%20Well-being.pdf>, vizitat 25.04.2018)
9. Rifat Atun • Erica Richardson Sergey Shishkin • Gintaras Kacevicius Mihai Ciocanu • Valeriu Sava, "Moldova Health system review,, 2008
10. GOVERNMENT OF THE REPUBLIC OF MOLDOVA MINISTRY OF HEALTH "Healthcare System Development for the period 2008-2017"

THE IMPORTANCE OF THE EUROPEAN CONVENTION ON HUMAN RIGHTS AND THE EUROPEAN COURT OF HUMAN RIGHTS IN SOLUTION OF ELECTION LITIGATION

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Abstract. *Actuality of the research theme.* A particularly important place for the protection of human rights, including electoral ones, is the European Convention on Human Rights, ratified by the Republic of Moldova, with the status of an international treaty that has direct applicability. The correct application of this Convention is ensured by the European Court of Human Rights (ECHR).

The purpose of this research. The aim of the research is to study electoral disputes through the analysis of the ECHR jurisprudence.

Research Methods. The thesis was based on the following methods: the logical analysis method which includes deductive analysis, generalization and specification; the method of comparative analysis used to determine the common characteristics of the functioning of various forms of sanctions in the electoral field; the content analysis method used to track the theme and keywords in the work in progress.

The results of the request. The theoretical study reflected in the paper will facilitate the emergence and development of new studies or research on the importance of the European Convention on Human Rights and the European Court of Justice in dealing with the liability for violation of electoral legislation. It is intended to develop or supplement the institution of the specific responsibility for electoral law, and also to deal with practical aspects, so that some beneficial aspects can also be taken in the reform of Moldovan legislation.

Key words: European Convention on Human Rights and Fundamental Freedoms, European Court of Human Rights, electoral litigation, liability for violation of electoral law.

JEL CLASSIFICATION: K19, K41.

The Importance of Research. Examination and settlement of electoral litigation is of undeniable importance, given that the willingness and the correctness of its implementation by the competent institutions depend on the way in which voters and those who run for election the democratic and free elections.

The settlement of electoral litigations in recent years is a rather intense phenomenon, and the discussions on this topic are becoming more and more current in the political and electoral contextual context of the Republic of Moldova.

The credibility of the election depends on several factors, such as transparency in the decision-making process, the impartiality of electoral bodies, the accuracy of electoral rolls, the prevention, suppression and sanctioning of electoral fraud.

In most legal systems, electoral law has evolved over time, reflecting the social and political factors of each country. The institutional framework, the powers and procedures within the electoral system, as well as the quality of electoral law enforcement differ from one country to another.

Democratic electoral systems have some common characteristics, such as: overseeing the process, detecting and investigating electoral deviations, determining guilty persons and punishing them. The need to approach a multitude of issues in electoral procedures has led to the emergence of more conventions, treaties, declarations, etc.

Internationally, the promotion of human rights has been embedded in some very valuable documents, among which, in this research, we highlight the Convention for the Protection of Human Rights and Fundamental Freedoms.

The purpose of the research is to highlight the importance of the Convention for the Protection of Human Rights and Fundamental Freedoms and the European Court of Human Rights in the protection and restoration of violated electoral rights.

The Republic of Moldova acceded to the European Convention on Human Rights on 12 September 1997. Since then, the Court has examined thousands of applications against our state by adopting judgments and decisions. Therefore, I intend to make an analysis of the cases that have as object the examination of electoral litigation before the European Court

In order to achieve our goal, we set the following **objectives**: to establish the role of the European Convention on Human Rights in the protection of electoral rights; to determine the importance of the European Court of Human Rights in restoring violated electoral rights; studying different ECHR cases concerning electoral litigation; formulating conclusions and recommendations at the end of the research.

We cannot deny that the European Convention on Human Rights and ECHR jurisprudence are in the hands of researchers, but with regard to their direct study in the context of the examination and resolution of electoral litigation, there are fewer studies related to this field, among which we can mention: Soltan V.

The Effect of the ECHR and the jurisprudence of the European Court of Human Rights on the domestic legal order in civil matters in the Republic of Moldova, as well as the national and international normative acts from which we will inspire to reveal the essence of the researched theme: European Convention for the Protection of Human Rights and Fundamental Freedoms, signed on 04.11.1950, in Rome, entered into force on 03.09.1953, Parliament's Decision no. 1298 / 24.07.97 on the ratification by the Republic of Moldova of the Convention for the Protection of Human Rights and Fundamental Freedoms as well as of additional protocols to this Convention. For the most part, the research was based on the study of ECHR jurisprudence from electronic sources.

Research was based on the following methods: logical analysis method including deductive, inductive, generalization and specification analysis; the method of comparative analysis used to determine the common features of different states in applying sanctions for violation of electoral legislation; the quantitative method used for the systematization of the normative framework, the storage and systematization of the legal scientific information used in the investigation; the content analysis method used to track the theme and keywords in the work in progress.

The Convention for the Protection of Human Rights and Fundamental Freedoms, also known as the European Convention on Human Rights, since it is a catalog of fundamental rights developed by the Council of Europe signed on 4 November 1950 in Rome and entered into force on 3 September 1953.

The Convention was ratified by almost all the member states of the Council of Europe, is one of the newest constructions of the international institutional system.

On 13 July 1995 the Republic of Moldova became a full member of the Council of Europe and the European Convention for the Protection of Human Rights and Fundamental Freedoms [2], concluded in Rome, by the Parliament of the Republic of Moldova of 24 July 1997 [1] on November 4, 1950, and Additional Protocols no. 1, 2, 3, 4, 5, 6, 7, 8 and 11 which entered into force for the Republic of Moldova on 12 September 1997 (with the exception of Protocol No. 6 which entered into force in October 1997, Protocol No. 7 - in force since 1 December 1997 and Protocol No 11 - in force since 1 November 1998). By joining the ECHR, the Republic of Moldova has undertaken to ensure the protection of the rights and freedoms proclaimed by the Convention by all persons under its jurisdiction.

From the provisions of the Constitution of the Republic of Moldova (Article 4 paragraph (2)) and the Constitutional Court Decision no. 55 of 14 October 1999 "On the interpretation of some provisions of art. 4 of the Constitution of the Republic of Moldova "that the ECHR is an integral part of the domestic legal system and is to be applied directly as any other law of the Republic of Moldova, with the distinction that the ECHR has priority over the rest of the internal laws that contradict it.

Article 3 of Protocol No. 1 to the European Convention on Human Rights provides that: "The High Contracting Parties undertake to organize free elections at reasonable intervals by secret ballot, under conditions which ensure the free expression of the opinion of the people on the choice of the legislative body" [4].

As regards the European Court of Human Rights and the system of protection of fundamental rights and freedoms introduced by the European Convention on Human Rights, it is based on the principle of subsidiarity. It is first and foremost the competence of the States Parties to the Convention to guarantee its application and the European Court of Human Rights should intervene only when the States have failed to fulfill their obligations. The control exercised in Strasbourg is mainly driven by individual applications, to which the Court may be seized by any natural or legal person under the jurisdiction of States Parties.

The right to vote and to be elected acquires an unquestionable importance in the system of European institutions in Strasbourg. Like the other normative clauses of the convention and protocols, it does not give rise to simple interstate obligations but implies the individual rights to vote and to be elected.

The latter, however, are not absolute in nature, since the signatory States of the Convention enjoy a wide range of appraisals and the Court must ensure that the conditions attached to those rights do not reduce them to their point of view touching in their very substance and depriving them of their effectiveness, that they pursue a legitimate aim and that the means used do not prove disproportionate.

In the following, we will examine some of the cases examined at the ECHR regarding the violation of electoral rights.

Podkolzina v. Latvia (application No 46726/99, judgment of 9 April 2002) [6]. The applicant participated in the 1998 parliamentary elections on the lists of a political party. After certain verifications of the Linguistic Center of the State, her name was excluded from the party lists on the grounds that she did not know the state language, or the law on parliamentary elections expressly provided as a criterion for eligibility the knowledge of the Latvian language. The court found violation of art. 3 of Protocol no. 1 and motivated by the fact that the existence of a general requirement of knowledge of the state language is a condition which pursues a legitimate aim in itself, in order to allow for the good functioning of the entire state system. However, the Court observed that the applicant had a valid certificate demonstrating his language skills. Therefore, limiting the right to participate in elections was not based on objective conditions and did not meet any eligibility conditions.

Aziz v. Cyprus (Application No. 69949/01, judgment of 22 June 2004) [5]. The applicant was unable to vote in the 2001 parliamentary elections, on the grounds that, according to the Constitution of Cyprus, members of the Cypriot-Turkish community were the Court found that the ECHR violated Article 14 (prohibition of discrimination) in conjunction with Article 3 of Protocol No. 1. The Court found that the State has a wide margin of appreciation in establishing the rules for parliamentary elections, but any interference is to be justified on reasonable and objective grounds. The differentiated treatment claimed by the applicant, resulting from the fact that he was a Turkish Cypriot, could not in any way justify the reasonable and objective basis

Sukhovetskyy against Ukraine (application No 13716/02, judgment of 28 March 2006) [7]. The applicant wanted to participate in the electoral race for the parliamentary elections in January 2002. In this respect, the candidates were to submit an electoral deposit of 218.10 Euros for the enrollment in the electoral race. The complainant alleged that he could not file this amount on the ground that his annual revenues did not exceed that amount. As a result, his name was not added to the list of candidates. The Court found that there had been no violation of art. 3 of Protocol no. 1 and noted that the electoral legislation of some European countries contains rules that discourage frivolous candidatures. Moreover, the Court observed that the amount required by the legislation of the Republic of Moldova was one of the smallest compared to the amounts used by other states. The

Court concluded that the fees applied for could not be considered as excessive or insurmountable in order to determine the willingness to participate in the elections.

Krasnov and Skuratov v. Russia (application 17864/04, judgment of 19 June 2007) [8, p. 16]. The applicants were accused of providing incorrect information about their posts when they voted for parliamentary elections, and they also failed to mention whether they were members of the Communist Party. Therefore, they were declared ineligible. The Court found that there had been no violation of art. 3 of Protocol no. 1, concerning the first applicant: He knowingly provided information that misled the voters. At the same time, the Court found that there had been violation of Art. 3 of Protocol no. 1 concerning the second applicant: there was no evidence that he provided false information and that he had never hidden his membership of the Communist Party. Therefore, its ineligibility could not be justified.

All three of these cases are formal eligibility conditions.

Kovach v. Ukraine (application No 39424/02, judgment of 7 February 2008) [9]. The complainant participated in the 2002 parliamentary elections. The case concerns his complaint about the incorrectness of counting the votes in the constituency where he was backtracked, in particular the cancellation of the votes and the refusal to recount the votes. The court found violation of art. 3 of Protocol no. 1. The Court found, in particular, that the Electoral Commission's decision to cancel the votes in four constituencies was arbitrary and was not proportionate to any legitimate aim.

Namat Aliyev v Azerbaijan (application No 18705/06, judgment of 8 April 2010) [8, p.16]. The complainant alleged that in the constituency in which he was registered for the parliamentary elections, there were a series of irregularities and violations of electoral law on election day. According to the applicant, this did not allow him to find the true opinion of voters in these constituencies, and therefore violated his right to free and fair elections. The court found violation of the right to vote.

In these cases, voting irregularities were reported.

Alajos Kiss v. Hungary (Application No 38832/06, judgment of 20 May 2010) [8, p.15]. The applicant lost his right to vote due to the fact that he was placed under protection because of psychological problems. This limitation was governed by the Hungarian Constitution, which provides for a general restriction of the right to vote for persons placed under protection. The court found violation of art. 3 of Protocol No. 1 and stressed that it can not accept a ban on the right to vote for all persons placed under protection without checking their mental capacities. This case refers to the limitation of the right to vote for persons placed under protection.

Tanase v. Moldova (application No 7/08, judgment of 27 April 2010 (Grand Chamber). [10] The case concerns the introduction of a ban on Moldovan citizens holding other citizens to stand as MPs, if they do not The complainant was simultaneously a citizen of the Republic of Moldova and of Romania, who was elected as a member of Parliament during the 2009 elections. The Court found violation of Article 3 of Protocol No. 1 by the fact that the ban was imposed 17 years after the declaration of independence and almost 5 years after the adoption of measures allowing the holding of multiple citizenship. The Court could not accept the argument that this measure was necessary to protect national and institutional security, such as and the legislation of the Republic of Moldova. In this case, the question of disqualification was analyzed based on the native origin nationality.

Sitaropoulos and Giakoumopoulos v. Greece (Application No 42202/07, judgment of 15 March 2012 (Grand Chamber - Grand Chamber) [8, p.14] In the 2007 parliamentary elections in Greece the applicants did not have the opportunity, and exercised the right to vote in the locality where they were living at that time abroad (France), because Greek law did not contain such provisions. Finally, the Court found that there had been no violation of Article 3 of Protocol No. 1 to the Convention The Court noted that no international treaty, established regional or practical legislation obliges states to hold elections for its citizens living abroad.

Shindler v. The United Kingdom (Application No 19840/09, judgment of 7 May 2013) [8, p.14]. The Court examined whether or not the right to vote of a British, non-resident British citizen from 1982 was violated by the law limiting voting rights for citizens who have been living abroad for more than 15 years. The Court found that there had been no violation of Art. 3 of Protocol no. 1. The Court ruled that the UK electoral law did not exaggerate the restriction of the applicant's right to free elections.

In both cases, the above is the issue of the right to vote for citizens living abroad.

Murat Vural v. Turkey (application No 9540/07, judgment of 21 October 2014) [12]. In October 2005, the applicant was convicted on the basis of the Atatürk crime law, after he sprayed several Mustafa Kemal Atatürk statues in public spaces. He was initially sentenced to 22 years and 6 months imprisonment, but following the appeal, the sentence was reduced to 13 years' imprisonment. At the same time, the Court has decided to apply a number of limitations of civil and political rights, especially during detention, being limited to the right to vote and to be elected, as well as to lead associations. In June 2013, he was released conditionally from places of detention. The court ruled that there had been a violation of Art. 3 of Protocol no. 1, in that the limitation of the applicant's right to vote did not end with conditional release from detention in June 2013. Therefore, being denied the right to vote for another 11 years, ie until October 22, 2018, when it would be released normally. Thus, the applicant could not vote for two more parliamentary elections. The Court referred to its jurisdiction, in particular to its judgment in the Hirst case (No.2) v. Great Britain, in which it stressed that a general automatic restriction of the right to vote for those serving a custodial sentence was incompatible with the provisions of art. 3 of Protocol no. 1. In the case mentioned, it is the limitation or even the prohibition of the right to vote of persons held for committing crimes.

In the present paper we intend to approach the theoretical and practical basis of the institution for the settlement of electoral litigation by the states parties to the European Convention on Human Rights.

Studying the proposed theme, in line with the jurisprudence of the European Court of Human Rights, we draw the following conclusions: respecting the law will be effective in the situation when those who commit deviations from it will respond for their deeds, then the law will tend to be fair with all and unbiased.

The correctness of liability regulation starts from the correct formulation of concrete rules with clear content. In this sense, legal responsibility, as an institution of law, proves its importance and the necessity of undergoing a profound analysis.

The fundamental rights of individuals, groups of people and peoples are affected and dependent on extraterritorial acts of the states, taking into account the economic, social and military influence that begins its existence with the emergence of the phenomenon of globalization and the "new world order".

Extraterritorial obligations should not be understood in the sense of assigning the responsibility of each state to ensure human rights for all people around the world. States' actions give rise to extraterritorial obligations related to human rights only under certain circumstances and conditions. A general precondition would be for the State to exercise control or authority over persons or spaces outside its territorial boundaries in a way that would adversely affect the fundamental rights and freedoms of those individuals.

Thus, extraterritorial obligations prove to be an exception in the application of the Convention, since their birth is determined only by actions / omissions of states in relation to persons under its jurisdiction.

International jurisdictional human rights protection implies the possibility for an international judicial body to rule on a case (relating to a violation of human rights) through a judgment that benefits from the authority of the trial. Particularly important, diverse and effective for the effective protection of human rights, these acts contribute decisively to defining and interpreting the range of rights and freedoms enshrined in legal sources [11].

As a result of the above, we can conclude that filing an application to the ECHR, as well as ECHR final judgments, are, as we have seen, grounds for requesting the review of irrevocable judgments handed down at national level.

Therefore, the courts and national authorities must be prudent in the application of the Convention and must take account of the judgments already made in order not to admit possible convictions.

If we refer to the specifics of the judicial practice issued by the ECHR in the field of electoral rights, then it is not a voluminous one for the Republic of Moldova.

Election violations have repeatedly been recorded in the electoral polls held up to the present stage, but since the reported deficiencies have not been able to influence the final results, the national and international observers considered that the elections took place in accordance with the principles, norms and of international standards. In order to prevent the repetition of such situations, the civil society in the Republic of Moldova is currently making enormous efforts to set up various organizations and coalitions aimed at preventing any violations of electoral rights and ensuring respect for the principles of the organization and holding of free and fair elections.

We would like to mention the role and importance of legislative and executive power that should not only seek to transpose international standards into national law, but also amend acts that contravene these provisions. The interaction between national legislation and international standards is reported from something special to general. It is important to note that electoral legislation must be formulated in clear and unambiguous language.

REFERENCES:

1. Parliament's Decision No 1298 / 24.07.97 on the ratification of the Convention for the Protection of Human Rights and Fundamental Freedoms as well as additional protocols to that Convention. In: Official Gazette, 21.08.1997, no. 54-55 / 502.
2. The European Convention for the Protection of Human Rights and Fundamental Freedoms, signed on 4 November 1950 in Rome, entered into force on 03.09.1953.
3. Soltan V. The Effect of the ECHR and the jurisprudence of the European Court of Human Rights on the domestic legal order in civil matters in the Republic of Moldova. <https://www.juridice.ro/482116/efectul-cedosii-jurisprudentei-curtii-europene-a-drepturilor-omului-asupra-ordinii-juridice-interne-in-materia-procesului-civil-in-republica-moldova.html> (visited 24.03.2018).
4. European Court of Human Rights. <http://www.echr.coe.int/Pages/home.aspx?p=home> (visited 11.04.2018).
5. Aziz in Cyprus <http://www.equalrightstrust.org/ertdocumentbank/Aziz%20v.%20Cyprus.pdf> (visited 24.03.2018).
6. Podkolzina v. Latvia https://en.wikipedia.org/wiki/Podkolzina_v._Latvia (visited 09.04.2018).
7. Use of International Election Standards. Council of Europe Manual for Civil Society Organizations. Program Framework for Armenia, Azerbaijan, Georgia, the Republic of Moldova, Ukraine and Belarus. <https://rm.coe.int/using-international-election-standards-rom/168073448b> (visited 09.04.2018).
8. Postica A., Tănase V. §.a. Promo Lex Study on Practice of Electoral Litigation in the Republic of Moldova. Parliamentary elections of 30 November 2014 and General Local Elections of 14.28 June 2015. Chisinau 2016. 56 pp. Https://promolex.md/wp-content/uploads/2016/08/Promo_Lex_RO_corect.pdf (visited 24.03.2018) .
9. Jurisprudence of the ECHR. Kovach v. Ukraine <http://jurisprudentacedo.com/KOVACH-c.-Ukrainine-Invalidation-arbitrara-in-call-allegations-legislative-andvotes-based-and-and-candidate-in-multi-sectii-selecto-having-as-result-victory-opponent-or-political-incalca.html> (visited 09.04.2018).
11. ECHR Judgment in Tănase v. Moldova case. Strasbourg, April 27, 2010. http://www.justice.gov.md/public/files/cedo/judgements/TANASE_en.pdf (visited 10.04.2018).
12. The European Convention on Human Rights as an integral part of the judicial methodology - motivating judgments. 2016. http://www.inmlex.ro/fisiere/d_1776/CEDO%20ca%20parte%20integranta%20a%20metodologiei%20judiciar-e%20-%20motivarea%20hotararilor.pdf (visited 08.04.2018).
13. Poalelungi M., Filincova S., Sorcu I. Handbook of Judge for Civil Cases, ed. II, Chisinau, Central Printing House, 2013, 1200 p. (Visited 11.04.2018).

DEFINITION OF CITIZENS' RIGHTS AS A FUNDAMENTAL RIGHT

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Abstract. *Citizenship is a fundamental right, a legal situation, a quality, a legal status. In this article we aim to analyze the essence of the right to citizenship as a fundamental right and to define it from this point of view. Why is the right to citizenship a fundamental one? Fundamental rights are enshrined in constitutions and are determined for the citizen's legal status, which are essential for citizens, for life, for freedom, for the development of their personality.*

Key words: citizen, constitutional law, constitution, subjective right

The institution of citizenship is of a complex character, belonging to several branches of law, at national level, however, it belongs to the constitutional law, and the analysis of the historical evolution of the right to citizenship has demonstrated, that through the French Declaration of Human and Citizen Rights (1789) was introduced the contemporary definition of citizenship, a historical event that radically changed the legal nature of citizenship. It was through this Declaration that the subject was liquidated, the citizenship being related to the active participation of the person in public life.

On December 10, 1948, the UN General Assembly adopted the Universal Declaration of Human Rights, according to which: "Everyone has the right to a nationality. No one can arbitrarily be deprived of his nationality or of the right to change his nationality "[5, art. 15]. Then came the European Convention on Citizenship, which enshrined the general principles of citizenship.

These norms of international law serve as the source of the institution of citizenship, which in each state enjoys constitutional regulation, thus becoming a fundamental institution of the legal system [7, p. 9].

In order to define the right to citizenship as a fundamental right, it is necessary to analyze the concepts of "fundamental rights", "human rights", "and citizenship rights." The concepts of "human rights" and "citizenship rights" are conditioned but not overlap the fact that human rights are the basis for the existence of citizens' rights, and that human rights have a broader meaning than citizens' rights, which is explained by the fact that human rights are universal rights applicable to all human beings, while citizens' rights are their own a group of people who are citizens of a state or another. This is why the right to citizenship is a fundamental right, because it has an international regulation and is guaranteed to all human beings, guaranteed by the Universal Declaration of Human Rights in internal plan level and the Constitution domestically.

These rights are essential only in relation to a society, for example in a society it will be crucial and in another - not. Because of their importance, fundamental rights are enshrined in constitutions, and their incorporation into constitutions gives them the fundamental rights, while they are given guarantees for their protection and exertion. So we can say that fundamental rights are those subjective rights of citizens essential to their lives, their freedom and dignity, indispensable for the development of human personality, rights established by the Constitution and guaranteed by the Constitution. Being inscribed in constitutions, fundamental rights are invested in special legal safeguards and are raised by its legal force, placing itself above all subjective rights.

Romanian researcher Tudor Draganu argues that by the notion of fundamental citizenship rights are meant those rights of citizens who, being essential for their physical existence, for their material and intellectual development, as well as for their active participation in the state, are guaranteed by the Constitution itself [6, p. 151].

The Constitution of the Republic of Moldova in 1994 enshrines the fundamental rights in Title II "Fundamental Rights, Freedoms and Duties" according to which the citizens of the Republic of Moldova enjoy the rights and freedoms enshrined in the Constitution and other laws, all citizens are

equal before the law regardless of race, nationality, ethnic origin, religion, sex, etc., and the state has a primary duty to protect the person [4, art. 15, 16]. Article 16 of the Constitution entitled "Citizenship of the Republic of Moldova" (2) stipulates "No one can arbitrarily be deprived of his nationality or the right to change his citizenship" [4, art.17].

According to the doctrinal Teodor Cârnat, fundamental rights are those subjective rights indispensable for the free development of personalities, rights established by the Constitution and guaranteed by this and other laws.

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From the point of view of terminology it can be observed that the terms of right or freedom are frequently used. For example, the Constitution uses, in Title II entitled "Fundamental Rights, Freedoms and Duties, the term of law, when the right to life and physical integrity are enshrined (Article 24), the right to information (Article 34), the right to defense (Article 26), the right to education (Article 35), etc. At the same time, the Constitution uses the term freedom when it enshrines individual freedom (Article 25), freedom of conscience (art.31), freedom of opinion and expression (art. .32) and others.

According to doctrinal Teodor Cârnat, these constitutional categories, although differently stated, mean only one legal category, namely the fundamental right. From a legal point of view, right is a freedom, and freedom is a right.

We therefore find that the right to citizenship is a fundamental right guaranteed by the Constitution of the Republic of Moldova and presents itself as a subjective right indispensable for the free development of personalities, which ensures the valorization of fundamental rights and freedoms guaranteed by the Constitution of the Republic of Moldova. Starting from the idea that both the Universal Declaration of Human Rights and the Constitution of the Republic of Moldova guarantee the fundamental rights, freedoms and duties of persons, we mention that these can be achieved only if the person has the capacity of a citizen. Only citizenship transfers the persons from the category of beneficiary to the category of holders of fundamental rights and freedoms.

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Citizenship involves a series of citizens' rights, based on the following principles:

- The right of every person to a nationality;
- Non-discrimination of citizens, regardless of the grounds for acquiring citizenship;
- Inadmissibility of the arbitrary deprivation of the person of her nationality and the right to change her nationality;
- Avoiding statelessness;
- Not producing effects by changing the citizenship of one of the spouses on the nationality of the other spouse or on the nationality of the child if there is no written request of the parents [8, art. 7].

These basic principles establish the legal framework for acquiring, exercising and losing the citizenship of the Republic of Moldova, as well as being stipulated in the European Convention on Citizenship.

In accordance with the principle of equal rights for citizens, all Moldovan citizens are equal in rights and obligations regardless of race, nationality, ethnic origin, religion, political affiliation, etc.

This principle offers legal protection to citizens, and in the opinion of S.E. Tanasescu, this protection is direct and indirect. Direct legal protection implies the possibility for the citizen to appeal to a court in case of discrimination, and the indirect one intervenes because of the role of the right-guarantee that equality plays in addition to the other fundamental rights [10, p. 10].

It should be noted that the principle of equality is directly related to the principle of non-discrimination, which is deduced from the texts of international conventions and according to which, as stated by T. Carnat, "no discrimination is admitted in the application of these conventions" 2, p. 223].

National legislation also provides that only citizens of the Republic of Moldova can enjoy all the fundamental rights and freedoms as follows:

- The right to elect and to be elected in the representative bodies of the state [4, art. 38; 8, art. 6 (2); 3, art. 11];
- The right to reside on the territory of the Republic of Moldova and to establish its residence in any locality in the country [4, art. 27];
- Moldovan citizens have access to public functions [4, art. 39];
- Citizens of the Republic of Moldova have the right not to be extradited or expelled from the country [4, art. 17];
- Citizens of Moldova have the right to state protection both in the country and abroad [4, art. 18].

These rights are based on the principle of the fullness of the rights and freedom of citizens. Therefore, the right to citizenship offers the possibility that a person can become a citizen and become the holder of all fundamental rights guaranteed by the constitution and reciprocal obligations respectively.

Researcher A. Arseni proposed a classification of the principles of citizenship, given that some of them are expressly formulated in law, and others can be deduced, thus elaborating a doctrinal analysis of them. Thus, the author proposes the following categories of principles of the right to citizenship: principles underlying the acquisition of citizenship; rights principles; security principles; exclusive principles; specific principles. We will continue to analyse some principles, namely those underlying fundamental rights and freedoms.

Principles underlying the acquisition of citizenship. In the Republic of Moldova, the generally applicable principle is the blood connection (*jus sanguinis*), thus ensuring the continuity of the nation, therefore the children of the citizens of the Republic of Moldova, irrespective of where they are born, are citizens of RM. In a special form another principle is applied - *jus soli*, the cases of application of the salt are expressly stipulated in art. 11 of the Citizenship Act in force - the case of children born on the territory of the Republic of Moldova from stateless, foreign parents, or children found on the territory of the Republic of Moldova. Another principle applicable to the acquisition of the citizenship of the Republic of Moldova is naturalization, it comes to the realization of the European Convention on Citizenship and the Universal Declaration of Human Rights, as well as of art. 7 of the Moldovan Citizenship Law - the right of every person to change his citizenship.

Rights principles. This category is assigned - The right of every person to a nationality. Starting from the fact that any human personality is the beneficiary of all fundamental human rights, which are essential to life and personality development and are enshrined in constitution and laws, we conclude that only possessing a person's quality of citizenship gives the individual the possibility to become the owner of all human rights and fundamental obligations.

Also in this category is the principle of protection of citizens abroad. Under this principle, Moldovan citizens abroad have the right to resort to state protection through consular officers. Consular officers provide assistance and protection to citizens in accordance with the rules and principles of international law in the event of illness, medical emergencies, deaths, accidents, loss of documents, etc. This principle is enshrined in the Constitution of the Republic of Moldova, art. 18 and in the Citizenship Law of RM, art. 8.

An important principle underlying the legal status of the Moldovan citizen is the prohibition to extradite or expel the citizens of the state. This principle is proclaimed by art. 18 of the Constitution

of the Republic of Moldova: "(2) Citizens of the Republic of Moldova can not be extradited or expelled from the country" [4, art. 18]. Extradition is a bilateral legal act whereby a state, called the requested State, agrees to make available to another state, called the requesting State, a person in its territory for the purpose of judgment or punishment in the requesting State [9, p. 12]. Expulsion, however, means forced removal of a stranger or stateless person who poses social danger, committed an offense, etc. and, as we can see, it refers only to foreigners. The Moldovan legislator introduced this norm, thus capitalizing on a traditional rule, which exists in the constitutions of several states and in the international regulatory documents in the matter. The extradition of the citizen would be in contradiction with the obligation of the citizen's state of protection and is contrary to the citizenship relationship.

Exclusive principles. This is the principle - Moldovan citizens are the holders of all rights provided by the Constitution and laws, which can be interpreted as follows: only Moldovan citizens enjoy the universality of the rights and freedoms enshrined in the Constitution and in other laws, while those who do not have the status of citizen of the Republic of Moldova can only benefit from some of these rights. This is the case for political rights: participation in the referendum, elections, the right to elect and to be elected, the right to hold certain public functions, etc. According to this principle, we notice that foreigners and stateless persons do not benefit from the same rights and freedoms as Moldovan citizens who possess the full rights and freedoms that a person can have in the Republic of Moldova. This difference is based on the full legal, political and moral ties between the state and the Moldovan citizen. It is worth mentioning that some exclusive rights granted to Moldovan citizens compared to foreigners and stateless persons have not only political content but also an economic and social one. The exclusivity of political rights has already been notified (the right to vote and to be elected, etc.), and the right not to be extradited is also political.

Also, this category embodies the principle - *citizens are to comply with and fulfill all their obligations established by the Constitution and other laws of the state.* According to the above principle, only Moldovan citizens are responsible for the country's social and economic development, for the sovereignty and integrity of the RM and are obliged to defend their independence. These fundamental citizenship duties are found in Chapter III of the Constitution of Moldova: Devotion to the country is sacred, the defense of the homeland is a holy duty and duty of every citizen, which also stipulates the obligation to satisfy the military service. As we can see, defending the country is a right and an obligation of every citizen. By this obligation, citizens are required to be always prepared to give proper reproach in case of military action or aggression. Defending the homeland belongs to all citizens of the Republic of Moldova, regardless of gender, race, national origin etc.

The right to citizenship is a fundamental right through which the other fundamental rights guaranteed by the Constitution are achieved. For example, Article 15 of the Constitution of the Republic of Moldova entitled "Universality" states that "Citizens of the Republic of Moldova benefit from the rights and freedom enshrined in the Constitution and other laws and are accordingly obliged to comply with the laws" [4, art. 15], which means that only those persons that have the status of a citizen can benefit from the rights and freedom enshrined in the supreme and even though some other categories of people benefit of univeral rights (the right to life, the right to health care, work, etc.), then exclusively political rights belong only to Moldovan citizens. For example, according to the electoral code of the Republic of Moldova, electoral law is a constitutional right of citizens and it means the right to vote, to be elected and to express by vote the attitude regarding the most important problems of state and society [3, art. 1]. Exclusive political rights only belong to citizens because citizens participate and contribute in the government because these rights concomitantly linked to the destiny of the country.

Citizens of the Republic of Moldova can express their options by voting at national and local elections, national and local referenda. The right to vote represents a central place within the legal status of the citizen. Through this democratic procedure, the citizen can express himself freely and without pressure, trying to solve consensus and violence without any social conflicts. Voting is an

important democratic way through which the Moldovan citizen can influence the decision-making process. The attributions of the right to vote (the right to vote) are universality, equality, direct, secret and free expression. It should be noted, however, that the right to vote implies certain restrictions expressly provided by law. For example, in accordance with art. According to Article 38 (2) of the Constitution, only citizens who have reached the age of 18 are entitled to vote.

The right to vote is the right to be elected, this being done under the same conditions as the right to vote.

The right to citizenship also confers fundamental duties on the citizen. The fundamental obligations are the obligations of the citizen for the accomplishment of the tasks of the society, they are realized by conviction or, as the case may be, by the coercive force of the state, being regulated by the Constitution of the Republic of Moldova in Chapter II, Chapter III "Fundamental Obligations". These can be grouped into two categories:

A) fundamental obligations towards the state:

- defending the homeland;
- devotion to the country;
- observance of the Constitution and other laws;
- contributing to public spending through taxes and fees.

B) Fundamental obligations intended to ensure the peaceful coexistence of citizens with other persons residing in the territory of the state:

- Respect for the legitimate rights and interests of other citizens;
- Exercise of constitutional rights and freedoms in good faith;
- Protection of the environment and of the monuments of history and culture;
- Parents' obligation to raise children and children to help parents [2, p. 147].

As has been pointed out, the first category contains the fundamental obligations towards the state, these being the main duties of Moldovan citizens.

Devotion to the country or fidelity, as stipulated in the Constitution of the Republic of Moldova, is sacred. This obligation is a general one and belongs to all Moldovan citizens, whether they are in the country or not, no matter what ethnicity they are. Fidelity derives from being a citizen of the Republic of Moldova.

Homeland defence implies the obligation of the military service [4, art. 57]. It is a holy duty and duty of every citizen, accordingly this obligation rests with both men and women and requires citizens to be always prepared to respond in all cases of aggression and action against the state.

Therefore, citizenship implies the right of citizens to enjoy the rule of law of the state, to participate in the constitution of this rule of law, and the obligation corresponding to that right. At the same time, citizenship implies a collective consciousness, national consciousness, an attachment of each person to the state, which justifies the existence of our state. Citizenship also implies the principle of equality of citizens before the law and the superiority of the citizen over the foreigners. Thus, the right to citizenship expresses an organic ensemble of rights and obligations predetermined by the Constitution and its system forms the legal status or legal status of the citizen.

Citizenship is a fundamental right for a natural person, because this right depends on the right to vote and to be elected, that is to say, political or citizen's rights in their own right, other fundamental rights enshrined in the constitutions, which means that the value of all fundamental rights is depending on the value of the right to citizenship.

When defining the right to citizenship as a fundamental right, we must bear in mind that this is a subjective right; is an essential right for a person because of its importance, this right is part of the constitution, being inscribed in the constitution, it is guaranteed by the supreme legislative act of the state and rises by its legal force, above all other subjective rights.

BIBLIOGRAPHY:

1. Arseni A. Constitutional law and political institutions. Elementary treaty. Chisinau: USM, 2005
2. Cârnat. T. Constitutional law. Chișinău, 2010

3. Electoral Code no.1381 of 21.11.97. In: MO of RM no. 81 of 08.12.97
4. The Constitution of the Republic of Moldova of 29 July 1994. In: MO of RM, no. 1 of 12.08.1994
5. The Universal Declaration of Human Rights, September 10, 1948
6. Draganu, T. Constitutional law and political institutions. Bucharest: Lumina Lex Publishing House, 1998, Volume 1
7. Guceac, I. Elementary Constitutional Law Course, Vol. 1. Chisinau, 2004
8. Citizenship Law of the Republic of Moldova no. 1024 from 02.06.2000 In: MO of RM no. 98-101 of 10.08.2000
9. Lupascu, Z. Citizenship and Citizens Rights. In: Law and Life, 2014, no. 7, p. 10-15
10. Tănăsescu, S.E. The principle of equality in Romanian law. Bucharest: All Beck, 1999

PROTECTING PRIVACY AND PREVENTING TERRORISM

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Abstract. Relevance of privacy in conditions of application The Global Counter-Terrorism Strategy of The United Nations and plan to ensure respect for human rights for all and the rule of law as the fundamental basis for the fight against terrorism. The article considers that privacy with protection of personal data and respect for private life are important fundamental rights. The United Nations (UN) and European Parliament have always insisted on the need to strike a balance between enhancing security, preventing terrorism and safeguarding human rights, including data protection and privacy. The EU data protection reform will strengthen citizens' rights, giving them better control of their data and ensuring that their privacy continues to be protected in the digital age.

Key words: privacy, Human Rights, The Global Counter-Terrorism Strategy of The United Nations

JEL CLASSIFICATION: K00, K15

INTRODUCTION.

Privacy is an issue of profound importance around the world. In nearly every nation, numerous statutes, constitutional rights, and judicial decisions seek to protect privacy.

In the constitutional law of countries around the globe, privacy is enshrined as a fundamental right. Although the U.S. Constitution does not explicitly mention the word privacy, it safeguards the sanctity of the home and the confidentiality of communications from government intrusion. The United States Constitution is the supreme law of the United States. The Constitution, originally comprising seven articles, delineates the national frame of government. Its first three articles entrench the doctrine of the separation of powers, whereby the federal government is divided into three branches: the legislative, consisting of the bicameral Congress; the executive, consisting of the President; and the judicial, consisting of the Supreme Court and other federal courts. Articles Four, Five and Six entrench concepts of federalism, describing the rights and responsibilities of state governments and of the states in relationship to the federal government. Article Seven establishes the procedure subsequently used by the thirteen States to ratify it. It is regarded as the oldest written and codified constitution in force of the world (created September 17, 1781; ratified June 21, 1788). [1]

The Supreme Court has concluded that the Fourth Amendment protects against government searches whenever a person has a reasonable expectation of privacy. Additionally, the Supreme Court has held that the Constitution preserves a «zone of privacy» encompassing decisions people make about their sexual conduct, birth control, and health, as well as protects their personal information against unwarranted disclosures by the government.

Many states explicitly protect privacy in their constitutions.

Beyond the United States, the vast majority of nations protect privacy in their constitutions. For example, Brazil proclaims that the privacy, private life, honor and image of people are inviolable; South Africa declares that everyone has the right to privacy; and South Korea announces that the privacy of no citizen shall be infringed. When privacy is not directly mentioned in constitutions, the courts of many countries have recognized implicit constitutional rights to privacy, such as Canada, France, Germany, Japan, and India. [2]

In addition, thousands of laws protect privacy around the world. Multinational privacy guidelines, directives, and frameworks have influenced the passage of privacy laws in a vast number of nations.

MATERIALS AND METHODS.

MATERIALS: The U.S. Constitution, The Universal Declaration of Human Rights of 1948, The European Convention of Human Rights of 1950, Privacy Guidelines of the Organization for Economic Cooperation and Development (OECD, 1980), the European Union's Directive on Data Protection specified (Directive 95/46/EC of 24 October 1995), Canada's Personal Information Protection and Electronic Documents Act of 2000, Japan's Personal Information Protection Law of 2003, Australia's Privacy Act of 1988, The Global Counter-Terrorism Strategy (UN, 2005). **METHODS:** systematic recording and critical examination.

RESULTS AND DISCUSSIONS. In 1980, the Organization for Economic Cooperation and Development (OECD) issued its Privacy Guidelines. These Guidelines apply to personal data, whether in the public or private sectors, which, because of the manner in which they are processed, or because of their nature or the context in which they are used, pose a danger to privacy and individual liberties. [3]

These Guidelines should not be interpreted as preventing:

1. the application, to different categories of personal data, of different protective measures depending upon their nature and the context in which they are collected, stored, processed or disseminated;
2. the exclusion from the application of the Guidelines of personal data which obviously do not contain any risk to privacy and individual liberties;
3. the application of the Guidelines only to automatic processing of personal data.

Of the OECD Member countries more than one-third have so far enacted one or several laws which, among other things, are intended to protect individuals against abuse of data relating to them and to give them the right of access to data with a view to checking their accuracy and appropriateness. In federal states, laws of this kind may be found both at the national and at the state or provincial level. Such laws are referred to differently in different countries. Thus, it is common practice in continental Europe to talk about data laws or data protection laws, whereas in English speaking countries they are usually known as privacy protection laws.

Countries which already have statutes in force are turning to new areas of protection or are engaged in revising or complementing existing statutes. Several other countries are entering the area and have bills pending or are studying the problems with a view to preparing legislation. These national efforts, and not least the extensive reports and research papers prepared by public committees or similar bodies, help to clarify the problems and the advantages and implications of various solutions. At the present stage, they provide a solid basis for international action.

The approaches to protection of privacy and individual liberties adopted by the various countries have many common features. Thus, it is possible to identify certain basic interests or values which are commonly considered to be elementary components of the area of protection. Some core principles of this type are: setting limits to the collection of personal data in accordance with the objectives of the data collector and similar criteria; restricting the usage of data to conform with openly specified purposes; creating facilities for individuals to learn of the existence and contents of data and have data corrected; and the identification of parties who are responsible for compliance with the relevant privacy protection rules and decisions. Generally speaking, statutes to protect privacy and individual liberties in relation to personal data attempt to cover the successive stages of the cycle beginning with the initial collection of data and ending with erasure or similar measures, and to ensure to the greatest possible extent individual awareness, participation and control.

Differences between national approaches as apparent at present in laws, bills or proposals for legislation refer to aspects such as the scope of legislation, the emphasis placed on different elements of protection, the detailed implementation of the broad principles indicated above, and the machinery of enforcement. Thus, opinions vary with respect to licensing requirements and control mechanisms in the form of special supervisory bodies (data inspection authorities). Categories of sensitive data are defined differently, the means of ensuring openness and individual participation vary, to give just a few instances. Of course, existing traditional differences between legal systems

are a cause of disparity, both with respect to legislative approaches and the detailed formulation of the regulatory framework for personal data protection.

International aspects of privacy and data banks. For a number of reasons the problems of developing safeguards for the individual in respect of the handling of personal data cannot be solved exclusively at the national level. The tremendous increase in data flows across national borders and the creation of international data banks (collections of data intended for retrieval and other purposes) have highlighted the need for concerted national action and at the same time support arguments in favour of free flows of information which must often be balanced against requirements for data protection and for restrictions on their collection, processing and dissemination. [3]

One basic concern at the international level is for consensus on the fundamental principles on which protection of the individual must be based. Such a consensus would obviate or diminish reasons for regulating the export of data and facilitate resolving problems of conflict of laws. Moreover, it could constitute a first step towards the development of more detailed, binding international agreements.

There are other reasons why the regulation of the processing of personal data should be considered in an international context: the principles involved concern values which many nations are anxious to uphold and see generally accepted; they may help to save costs in international data traffic; countries have a common interest in preventing the creation of locations where national regulations on data processing can easily be circumvented; indeed, in view of the international mobility of people, goods and commercial and scientific activities, commonly accepted practices with regard to the processing of data may be advantageous even where no transborder data traffic is directly involved. [3]

In 1995, the European Union's Directive on Data Protection specified fundamental principles for privacy protection in Europe.

Directive 95/46/EC of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data is the central piece of legislation on the protection of personal data in the EU. The directive stipulates general rules on the lawfulness of personal data processing, sets out the rights of data subjects and makes provision for national independent supervisory authorities. The directive stipulates that personal information may only be processed if the person concerned has given his/her explicit consent to, and has been informed in advance of, the data processing. [4]

Numerous countries have enacted extensive privacy protections, such as Canada's Personal Information Protection and Electronic Documents Act of 2000, Japan's Personal Information Protection Law of 2003, Australia's Privacy Act of 1988, and Argentina's Law for the Protection of Personal Data of 2000, to name just a few. [2]

Furthermore, privacy is recognized as a fundamental human right. According to the United Nations Universal Declaration of Human Rights of 1948 - No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, no to attacks upon his honor and reputation. [2]

The European Convention of Human Rights of 1950 provides that «everyone has the right to respect for his private and family life, his home and his correspondence». [2]

Thus there appears to be worldwide consensus about the importance of privacy and the need for its protection.

In the meantime, the international community adopted a series of sectoral conventions that define and criminalize various types of terrorist activities. In addition, since 1994, the United Nations General Assembly has condemned terrorist acts using the following political description of terrorism: «Criminal acts intended or calculated to provoke a state of terror in the general public, a group of persons or particular persons for political purposes are in any circumstance unjustifiable, whatever the considerations of a political, philosophical, ideological, racial, ethnic, religious or any other nature that may be invoked to justify them». [5]

The United Nations General Assembly adopted the Global Counter-Terrorism Strategy on 8 September 2006. The strategy is a unique global instrument to enhance national, regional and international efforts to counter terrorism.

Through its adoption that all Member States have agreed the first time to a common strategic and operational approach to fight terrorism, not only sending a clear message that terrorism is unacceptable in all its forms and manifestation but also resolving to take practical steps individually and collectively to prevent and combat it. Those practical steps include a wide array of measures ranging from strengthening state capacity to counter terrorist threats to better coordinating United Nations system's counter-terrorism activities.

The adoption of the strategy fulfilled the commitment made by world leaders at the 2005 September Summit and builds on many of the elements proposed by the Secretary-General in his 2 May 2006 report, entitled Uniting against Terrorism: Recommendations for a Global Counter-Terrorism Strategy. [6]

The Global Counter-Terrorism Strategy in the form of a resolution and an annexed Plan of Action composed of 4 pillars:

1. Addressing the conditions conducive to the spread of terrorism.
2. Measures to prevent and combat terrorism.
3. Measures to build states' capacity to prevent and combat terrorism and to strengthen the role of the United Nations system in that regard.
4. Measures to ensure respect for human rights for all and the rule of law as the fundamental basis for the fight against terrorism.[6]

If we make study about privacy we must make annalist of «Measures to ensure respect for human rights for all and the rule of law as the fundamental basis for the fight against terrorism».

United Nations resolve to undertake the following measures, reaffirming that the promotion and protection of human rights for all and the rule of law is essential to all components of the Strategy, recognizing that effective counter-terrorism measures and the protection of human rights are not conflicting goals, but complementary and mutually reinforcing, and stressing the need to promote and protect the rights of victims of terrorism:

1. To reaffirm that General Assembly resolution 60/158 of 16 December 2005 provides the fundamental framework for the «Protection of human rights and fundamental freedoms while countering terrorism».[7]
2. To reaffirm that States must ensure that any measures taken to combat terrorism comply with their obligations under international law, in particular human rights law, refugee law and international humanitarian law.
3. To consider becoming parties without delay to the core international instruments on human rights law, refugee law and international humanitarian law, and implementing them, as well as to consider accepting the competence of international and relevant regional human rights monitoring bodies.
4. To make every effort to develop and maintain an effective and rule of law-based national criminal justice system that can ensure, in accordance with our obligations under international law, that any person who participates in the financing, planning, preparation or perpetration of terrorist acts or in support of terrorist acts is brought to justice, on the basis of the principle to extradite or prosecute, with due respect for human rights and fundamental freedoms, and that such terrorist acts are established as serious criminal offences in domestic laws and regulations. We recognize that States may require assistance in developing and maintaining such effective and rule of law-based criminal justice system, and we encourage them to resort to the technical assistance delivered, inter alia, by the [United Nations Office on Drugs and Crime](#).

5. To reaffirm the United Nations system's important role in strengthening the international legal architecture by promoting the rule of law, respect for human rights, and effective criminal justice systems, which constitute the fundamental basis of our common fight against terrorism.

6. To support the [Human Rights Council](#), and to contribute, as it takes shape, to its work on the question of the promotion and protection of human rights for all in the fight against terrorism.

7. To support the strengthening of the operational capacity of the Office of the [United Nations High Commissioner for Human Rights](#), with a particular emphasis on increasing field operations and presences. The Office should continue to play a lead role in examining the question of protecting human rights while countering terrorism, by making general recommendations on States' human rights obligations and providing them with assistance and advice, in particular in the area of raising awareness of international human rights law among national law-enforcement agencies, at States' request.

8. To support the role of the [Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism](#). The Special Rapporteur should continue to support States' efforts and offer concrete advice by corresponding with Governments, making country visits, liaising with the United Nations and regional organizations, and reporting on these issues.

The Special Rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism is an independent expert appointed by the UN Human Rights Council. The mandate holder has been invited to gather, request, receive and exchange information on alleged violations of human rights and fundamental freedoms while countering terrorism, and to report regularly to the Human Rights Council and General Assembly about inter alia identified good policies and practices, as well as existing and emerging challenges and present recommendations on ways and means to overcome them.

Historical background. In April 2005, the Commission on Human Rights, in resolution 2005/80, created a mandate of a special rapporteur on the promotion and protection of human rights and fundamental freedoms while countering terrorism. Like other Special Procedures, this mandate was assumed by the Human Rights Council (General Assembly resolution 60/251), and extended for one year, subject to the review to be undertaken by the Council (Human Rights Council decision 1/102).

Subsequently, the mandate was extended by the Human Rights Council for a period of three years by resolution 6/28 on 14 December 2007. Further extensions for the same period were done by resolution 15/15 on 30 September 2010 and resolution 22/8 on 21 March 2013. On 23 March 2016, the Human Rights Council extended the mandate of the Special Rapporteur for a further period of three years (resolution 31/3). [8]

The Special Rapporteur is mandated by HRC resolution 15/15:

a) To make concrete recommendations on the promotion and protection of human rights and fundamental freedoms while countering terrorism, including, at the request of States, for the provision of advisory services or technical assistance on such matters;

b) To gather, request, receive and exchange information and communications from and with all relevant sources, including Governments, the individuals concerned and their families, representatives and organizations, including through country visits, with the consent of the State concerned, on alleged violations of human rights and fundamental freedoms while countering terrorism;

c) To integrate a gender perspective throughout the work of his/her mandate;

d) To identify, exchange and promote best practices on measures to counter terrorism that respect human rights and fundamental freedoms;

e) To work in close coordination with other relevant bodies and mechanisms of the United Nations, and in particular with other special procedures of the Council, in order to strengthen the work for the promotion and protection of human rights and fundamental freedoms while avoiding unnecessary duplication of efforts;

f) To develop a regular dialogue and discuss possible areas of cooperation with Governments and all relevant actors, including relevant United Nations bodies, specialized agencies and programmes, with, inter alia, the Counter-Terrorism Committee of the Security Council, including

its Executive Directorate, the Counter-Terrorism Implementation Task Force, the Office of the United Nations High Commissioner for Human Rights, the Terrorism Prevention Branch of the United Nations Office on Drugs and Crime and treaty bodies, as well as non-governmental organizations and other regional or subregional international institutions, while respecting the scope of his/her mandate and fully respecting the respective mandates of the above-mentioned bodies and with a view to avoiding duplication of effort;

g) To report regularly to the Council and to the General Assembly.

Working methods. In the discharge of the mandate, the Special Rapporteur:

a) Transmits urgent appeals and letters of allegation to Member States on alleged violations of human rights and fundamental freedoms while countering terrorism (See submitting information to the special procedures).

b) Undertakes fact-finding country visits.

c) Submits annual reports to the Human Rights Council and General Assembly. [8]

CONCLUSIONS.

Legal protections of privacy depend upon a conception of privacy that informs what matters are protected and the nature and scope of the particular protections employed, but this underlying conception of privacy is often poorly theorized and rarely examined.

Moreover, people cannot appropriately self-manage their privacy due to a series of structural problems. There are too many entities collecting and using personal data to make it feasible for people to manage their privacy separately with each entity. Moreover, many privacy harms are the result of an aggregation of pieces of data over a period of time by different entities. It is virtually impossible for people to weigh the costs and benefits of revealing information or permitting its use or transfer without an understanding of the potential downstream uses, further limiting the effectiveness of the privacy self-management framework. In addition, privacy self-management addresses privacy in a series of isolated transactions guided by particular individuals. Privacy costs and benefits, however, are more appropriately assessed cumulatively and holistically — not merely at the individual level.

REFERENCES:

1. United States Constitution. <https://en.wikipedia.org/wiki/>
2. Solove Daniel .Understanding Privacy. The George Washington University Law School, 2008.
3. Privacy Guidelines of the Organization for Economic Cooperation and Development (OECD), 1980. http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_4.2.8.html
4. The European Union's Directive on Data Protection (Directive 95/46/EC of 24 October 1995)
5. https://en.wikipedia.org/wiki/Definitions_of_terrorism
6. <https://www.un.org/counterterrorism/ctif/un-global-counter-terrorism-strategy>
7. Protection of human rights and fundamental freedoms while countering terrorism, Resolution adopted by the General Assembly on 16 December 2005 (60/158)
- 8 <http://www.ohchr.org/EN/Issues/Terrorism/Pages/SRTerrorismIndex.aspx>

NULLITIES IN CRIMINAL PROCEEDINGS AND THE EXCLUSION OF EVIDENCE

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Abstract. *The procedural sanction is one of the key elements of the criminal procedure legal norm, which establishes enforcement of coercive measures in case of violation of the legal provisions. The sanction determines the type and character of liability, outlines its limits, it represents a remedy for the removal of certain legal consequences when the procedural acts and actions have been committed by violation of the law. Procedural nullities fulfill two fundamental functions. First of all, nullities ensure the procedural legality and on the other hand remove those acts that were done by violation of the law, presumed or proven to be harmful to the interests of the participants in criminal proceedings. Any person can complain against the measures and acts of criminal prosecution bodies if this has caused an injury to his/her legitimate interests. Criminal and judicial prosecution bodies do not always take the necessary measures to establish the objective truth in criminal cases, being one of the most widespread violations. Nullities cover both procedural acts and documents. Any violation of procedural rules concerning the content of the criminal proceedings, such as the general provisions of the Criminal Procedure Code, are liable to be declared invalid because they have simultaneous enforcement to the rules governing criminal proceedings. There are other sanctions applied for inappropriate performance of the acts recognized by the law, but mentioning that these sanctions are incidental only by reference to nullities.*

Key words: Jurisprudence, criminal proceedings, sanction, nullity, effects, exclusion, evidence

JEL CLASSIFICATION: K38, K40, K49

INTRODUCTION

Free access to justice establishes the positive obligation to set out a particular system of effective procedural safeguards, which includes the sanctions.

This research addresses comments and summarizes the main issues regarding *procedural nullity*, interwoven with the special sanction of *exclusion of evidence*. The systemic approach allows improving the proper application of a fundamental legal concept of the criminal procedure law which is the nullity and at the same time, it can provide useful information to practitioners and litigants.

We notice *senso bono* the lack of exhaustive regulation of the hypotheses that may lead to the nullity of procedural acts, especially when referring to relative nullities.

An innovative approach *inter alia* is based on the procedures regarding pre-trial control of actions and acts done within criminal proceedings. The analysis done facing the procedural norms in the national Criminal Procedure Code, Criminal Procedure Code of Romania; the references made to the jurisprudence of national and international courts; the delimitation of nullity of other procedural sanctions; its correlation with the exclusion of evidence; are of a particular interest. The main purpose of the research is to establish the field of application of criminal procedural nullity.

In order to achieve the intended goal, the following objectives must be pursued:

- a) determining the content and the scope of nullities
- b) classification of nullities according to different criteria and the general characterization of its conditions of validity
- c) identification of the main effects of nullities
- d) identifying the mechanism of exclusion of evidence

Thus, the criminal procedure sanction is the element of criminal procedure legal norm which involves the application of coercive measures in case of violation of the legal provisions. The sanction determines the type and character of the liability, outlines its limits, it is a remedy for the removal of legal consequences when the procedural acts and actions have been done by violation of the law.

Stricto sensu, procedural sanctions are the *nullities*. *Lato sensu*, in addition to *nullities*, the sanction of *inadmissibility*, *withdrawal of rights* and *non-existence* is recognized. Regarding the evidence, the special sanction for the *exclusion of unlawful evidence* is applicable, although it can be perceived as one of the effects of nullities.

Criminal procedure sanctions pursue three main purposes: preventive; sanctioning and restorative. Regarding evidentiary rules, procedural sanctions act as safeguards.

In order to cover the nullities, multiple systems can be used: an exclusive and formally conceived concept indicating that any violation of the criminal procedure law should draw the nullity or the less rigid one, involving the idea of rights damages as basis of the theory of procedural nullities.

MATERIALS AND METHODS

While preparing the study, national authors opinions were consulted, especially *Dolea I., Roman D., Sedlechi Iu., Vîzdoagă T.* In terms of comparative law, the researches of the authors from Romania, Russian Federation, United States of America, United Kingdom of Great Britain and Northern Ireland were researched, among other we particularly highlight *Antoniu Gh., Ionescu-Dolj I., Neagu I., Volonciu N., Якимович Ю., Кокорев Л., Keane Ad., Aldisert R.* and others.

The scientific work is supplemented by a comprehensive analysis of the jurisprudence of the national and international courts, making appropriate references to the findings in the case-law and by providing the necessary explanations and comments.

We must underline that, without an appropriate jurisprudential examination, the theoretical assessments would be relevant only in terms of knowledge, noting that the importance of the empirical experience and data can't be denied.

The methodological, theoretical and scientific support of the paper is comprehensive, in this respect we appealed to the following research methods:

- a) The logical method
- b) The systemic method
- c) The comparative method
- d) The historical method

RESULTS AND DISCUSSIONS

The procedural acts performed against the conditions established by law are of no value, being legally ineffective. Nullity is drawn to existing prosecution acts and procedural documents that have arisen through non-compliance to legal provisions, by omission or violation of the forms and conditions prescribed by law.

The Criminal Procedure Code of 1961 [1] recognized nullities on special provisions stipulated by article 325 CPC, *sui generis* the essential breach of the criminal procedure law, or such as the articles 16, 35, 188, 193-195 CPC of 1961, when referring to duties related to control of the prosecution.

Criminal procedure nullity is regulated under general provisions of the article 251 CPC, *in nomen juris* violations that entail the nullity of procedural acts, and under particular provisions set up by the articles 94; paragraph (2) article 255; articles 427, 444; point 2) paragraph (1) article 453 CPC and others of the Criminal Procedure Code.

Actually, the law uses such terms as *serious violation*, *obvious violation* and *essential breach*, or by exemplifying concretely the hypotheses in which the nullity operates.

In a historical-comparative perspective, it must be stressed out that the existence of nullity in Romanian criminal procedure law is closely related to the existence of a procedural harm to legal rights, as an *ad validitatem* condition. At the moment, nullities are regulated under articles 280–282 CPC of Romania [2], until 2014 article 197 CPC.

Procedural nullities aim to fulfill two fundamental functions. First of all, nullities ensure the procedural legality and, on the other hand, remove those acts that were done by violation of the law, presumed or proven to be harmful to the interests of the participants in criminal proceedings.

Any person can complain against the measures and acts of criminal prosecution bodies if this has caused an *injury* to his/her legitimate interests. Mainly, the control exercised by the prosecutor and the hierarchically superior prosecutor is carried out in accordance with the provisions stipulated under the articles 52, 298 – 299² CPC, as well as by the investigative judge in the process of judicial control of the prosecution phase.

Therefore, the prosecutor at the criminal investigation phase is reviewing the lawfulness of procedural actions, cancels the unlawful ordinances or returns the criminal case (*files*) to the criminal prosecution body with written instructions on the recovery of certain procedural acts. Under the provisions of the 1961 Code, article 16 CPC established the prosecutor's duty to take in time, at any stage of the criminal trial measures as required removing any violation of law, regardless of who committed it, including the participants in criminal trials. In the same way article 35 or subparagraph d) paragraph (2) of the article 188 CPC is relevant.

Under current provisions, the prosecutor has the possibility to intervene if he finds out that a certain act or a certain procedural measure is not justified or is not in accordance with the provisions governing criminal prosecution or investigations [3, 49]. On the other hand, the examination and solving complaints against the actions and illegal acts of the criminal investigation and prosecution bodies, of the bodies carrying out the special investigative activity and of the prosecutor is included in the field of the judicial control of the pre-trial criminal phase.

The procedure for submission and reviewing complaints against the actions or inactions of the criminal investigation body, of the body carrying out the special investigative activity, of the prosecutor, deals with specific conditions and particularities and is usually composed of two main stages.

In the first stage, complaints are forwarded directly to the prosecutor, either to the criminal prosecution body. The jurisdiction, terms and examination procedure is governed by provisions of the articles 298-299¹ CPC. In the second case, criminal prosecution body is obliged to submit it within 48 hours of its receipt to the prosecutor together with his or with of the body's carrying out the special investigative activity explanations, when necessary, and to be examined within 15 days.

The synthesis of paragraph (6) article 3, subparagraph b) paragraph (2) article 13 and paragraph (3) article 33 of the *Law* [4], states that the hierarchically superior prosecutor, directly and reasonably revokes, suspends or cancels acts issued by the hierarchically inferior prosecutor contrary to the law, while the procedural hierarchy in this matter is being established under the provisions of paragraph (1) article 13 of the law cited above, or point 37¹) article 6 and paragraph (2) article 299¹ of the CPC. The ordinance by which the hierarchical superior has solved the complaint may be challenged (*appealed*) at the investigative judge (*investigating magistrate*).

The second stage refers to the control exercised by the investigative judge under the conditions and cases provided by the law, case by case and/or in certain situations, in the hierarchically superior *appeal court* in the procedure of appeal (*in review*) control.

The complaint may be submitted to the investigating judge after fulfilling the requirements under articles 298 and 299¹ CPC, under the sanction of *withdrawal of rights (loss)*, within 10 days from the date when the subject was informed about the outcome of examination or failure to reply to the complaint.

Under paragraph (4) article 313 CPC, the investigative judge within 10 days, shall examine the complaint, with the mandatory participation of the leading prosecutor in question and with due notification of the person who submitted the complaint. The prosecutor is obliged to submit the materials in court, check arguments until resolution, take adequate measures and the gathered materials are to be submitted to the judge at the time of the examination of the complaint. The absence of the person who made the complaint does not prevent the examination of the complaint, with appropriate exceptions.

On this occasion, the court of appeal (*in review control*) [5] held that "*the court of first instance, in the person of the investigating magistrate, has examined case unipersonally, without summoning the parties, by the violation of the right of the participants to a fair trial and the right to defend their position [...] Jadversarial proceedings entitles the parties with the possibility, in civil or criminal trials, to get acquainted with all the evidence or observations annexed to the case (file) and to comment on them [...]*".

The courts shall mandatory examine the question of jurisdiction and proceed in accordance with article 44, 345, 348 CPC, under the sanction of nullity. In its decision, the judge must rule on all the *arguments raised in the complaint*. The failure to rule on all the pleas raised affects *eo ipso* person's right of access to justice guaranteed by article 6 of ECHR, article 20 of the Constitution and article 313 CPC. According to paragraph (6) article 313 CPC, judge's decision is irrevocable and may be challenged only by *extraordinary appeal* in cases and conditions stated by paragraph (3) article 452 CPC, if an error of law has been committed as grounds for an *appeal in cassation* under paragraph (1) article 453 CPC, but *nulla regula sine exceptione* as was said before.

Nullity meet the following classifications: a) according to the way of expression in the legal norm, can be express and virtual; b) by their application and effects they produce, they are relative and absolute; c) by the coverage, there are total or partial nullities; d) by the possibility of covering them, there are coverable and non-coverable nullities; e) by the action of nullities in time, they can be retroactive and ultra active; f) by their character, they may be by the form, by substance and special nullities; g) according to the conditions and the trial procedure and other. [6]

Several systems are known to regulate nullity:

- a) the formalistic system, by which any violation of procedural rules must result in the nullity and restoration of the act under the provisions of the law;
- b) the informal system, where nullity is allowed only in the case of violation of those legal provisions for which the nullity sanction is expressly stated;
- c) the mixed system, which provides certain provisions to the infringements which can raise the nullities, but may also be applied in the case of breach of other provisions, if certain conditions are met [7, 488].

Criminal and judicial prosecution bodies do not always take the necessary measures to establish objective truth in the criminal cases, which is one of the most widespread violations of law. This omission may lead to the annulment of procedural acts [8, 25] and referring back the case to further investigation or a new judicial process. On this occasion, the criminal section of the Court of Appeal [9] held that, – "*the judge and the prosecuting authority did not consider the materials of the case in all respects, he researched the materials presented by the prosecutor ordinance [...] there was a refusal to initiate the criminal prosecution, the dismissal (o.n.: termination) of proceedings and under the ordinance of the prosecutor, deputy of the district prosecutor [...] on the rejection of the complaint, the rights and freedoms of the petitioner NM and PN are violated, which are protected by the Constitution of the Republic of Moldova, ECHR, the right to a fair trial. [...] appeal court concludes that the petitioners appeal PN, NM is to be admitted [...] Are declared null (o.n.: invalid): the prosecutor's ordinance in the prosecutor's office [...] of [...] 2014 on refusal to initiate criminal proceedings and dismissal of proceedings; ordinance of the prosecutor, deputy of district prosecutor [...] of [...] 2015 on the rejection of the complaint; the district prosecution office is obliged [...] to remove the admitted violations of petitioners' rights.*"

The nullity of the procedural act does not automatically operate, or as to be found it is required to be invoked *ex officio* or required by interested parties to the proceedings. It is also necessary that the violation of law cannot be removed otherwise.

The field of nullities includes both procedural acts and documents. In the absence of an *exhausta* legal interpretation, we join the opinion [10, 184] that any violation of procedural rules regarding the content of criminal proceedings, such as the regulations under the general part of the CPC, are liable to be declared null as they have a concurrent application to the rules governing the proceedings.

For example, the sanction of non-compliance with the summon procedure may be the cancellation of the summons consequently. In this respect, the synthesis of the court's arguments held are, - “*summoning the defendant to the wrong address other than the one where he lives, for the time when judgment is taking place, is a ground for nullity under paragraph (1) article 197 CPC of Romania, and since it put the defendant in a situation where he could not defend himself, which is an injury that can only be removed by annulment of the act, judgment of conviction must be quashed*” [11, 84].

In another case [12], the same conclusion of the criminal section of the Court of Appeal was held, - “[...] the case was examined unilaterally, in the absence of the convicted person [...] and his lawyer, who were not legally summoned in court, and the case materials attached does not confirm the fact that a lawyer has been invited by the court [...]”.

In another perspective, in case *X v. UK, 1982* and *Vaudelle v. France, 2001* [13, 196], the applicant was informed about the date of the process immediately before it. The Commission considered it appropriate for the accused to be informed by *a reasonable notification* on the date and location of the trial, but „*only that particular aspect of the applicant's proceedings cannot in this case be regarded as decisive for the question of whether the applicant has been the subject of a fair trial*”, no violation of the rights of the person was found.

The law recognizes other sanctions for non-fulfillment or inappropriate completion of the acts, noting that these sanctions are incidental only by reference to the sanction of *nullity*. Such sanctions are the *inadmissibility; withdrawal of rights* and the legal doctrine also consider the sanction of *non-existence*.

No matter how much effort is followed, some procedural acts must be completed or corrected. Material errors and obvious omissions are removed in accordance with article 249, 250 CPC, and not under the nullity provisions. Moreover, failure to respect the conditions set for the completion and correction of acts will generate *eo ipso* the nullity.

The null act does not produce the effects of the valid act, being deprived of legal effects according to dictum *quod nullum est, nullum producit effectum*. Exceptionally, the nullity of a procedural act may extend to the previous acts on which it is based. For comparison, paragraph (2) article 280 CPC of Romania expressly establishes the nullity of subsequent acts when there is a direct connection between them and the act declared null or invalid.

Nullity produces four main effects:

a) the direct or destructive effect, - attracts the legal non-effectiveness of acts drawn up in violation of the law, in other words, the cancellation of acts drafted as a result of non-compliance to the law; acts are considered to be devoid of legal effect from the moment of its drafting (*ex tunc*), and not from the moment of its finding as null (*ex nunc*);

a) the repairing effect, - canceled acts must be restored, when possible, the annulled acts are remade by the body that originally prepared them and rarely by another body;

b) preventive effect, - prevents the violation of the legal provisions governing the conduct of the criminal proceedings, also acting as procedural safeguard;

c) indirect effect, - consists in the annulment of the previous, concurrent and posterior acts, which are in connection to the canceled act.

In literature there are discussions on the extensive effect of nullity, questioning whether the nullity of an act also draws nullity of previous acts, concurrent or subsequent to that required by the act declared invalid in causal connection. We opt for the jurisprudential orientation adopted by the courts of the Anglo-Saxon law system. Thus, it was appreciated that often, the causal relationship in the matter of effects is not properly qualified. The error may consist in effects resulting in a conclusion from a sequence, which presumes a causal link between two events just because it follows chronologically. *Post hoc ergo propter hoc*, or *after that, therefore, because of this*, an error that explains itself [14, 682].

The doctrine of the *poisoned tree* is an outcome of the *exclusive rule*, stating that unlawfully obtained evidence, by illegal arrests, unwarranted searches, or forced interrogations must be

excluded from the process. The *fruit of the poisoned tree* is the evidence found out later. These safeguards were established by regulations of the IV amendment to the Constitution of USA [15]. *The tree and his poisoned fruit* are both excluded from the criminal trial. In this regard, the findings of the US Supreme Court in the case *Silverthorne Lumber Co. v. USA 1920* [16] are relevant.

The phrase *fruit of the poisoned tree* was used for the first time in *Nardone v. USA, 1939* [17] so as, “any claim for the exclusion of evidence logically relevant in criminal prosecutions is heavily handicapped. It must be justified by an over-riding public policy expressed in the Constitution or the law of the land. In a problem such as that before us now, two opposing concerns must be harmonized: on the one hand, the stern enforcement of the criminal law; on the other, protection of that realm of privacy left free by Constitution and laws but capable of infringement either through zeal or design. In accommodating both these concerns, meaning must be given to what Congress has written, even if not in explicit language, so as to effectuate the policy which Congress has formulated”. The doctrine of the *poisoned tree* was applicable for the first time in the case *Wong Sun v. USA 1963* [18].

In the same way, of a particular interest is the case *Fox v. Chief Constable of Gwent* [19] (*United Kingdom*), in which the English court held that legal detention is not a prerequisite for conducting the alcohol test [20, 149].

The doctrine appreciates that there are three main judgments to exclude abusively obtained evidence [20, 150]: protecting the rights, discouraging or disciplining the criminal prosecution body and the legitimacy of the decision. These reasoning had its development in various distinct theories.

One theory relates to remediation. Accordingly, by announcing the standards and their formal consecration in law, the legislator implicitly set limits on legal access to evidence [20, 152]. Once the evidence discovered, no matter what is the outcome of it, our perception of the world will change forever, the time and events succeeding, and the informative character of *status quo ante* can never really be remedied once the cognitive innocence has been lost [20, 153]. The state cannot claim simplistically that it does not know that the suspect is probably a dangerous killer, knowing it for sure. However, it cannot be said that violations can be fully tolerated without remedy. On the contrary, the common law system has traditionally reversed this relationship and created remedies by virtue of human rights: *ubi remedium, ibi jus* [20, 154]. The assertion that the violation of rights requires remediation in a determined form does not imply that it imperatively embraces the form of exclusion. Evidence which is obtained as a result of violation of rights may be categorized as inadmissible but not exclusively for the purpose to compensate a substantial right. Taking into account the *above* mentioned, as well as other particularities of the theory, it is easy to conclude that the *pro* arguments to the exclusion of improperly obtained evidence could pass to a new field, which is not so necessary in the meaning of reparation of the accused's rights, than disciplining the bodies empowered to act *outside the legal field* and thus to safeguard the privacy and security of the citizens of the harassment issues in the future.

Another theory relates to discouragement. While the theory of remedy centers on the rights in terms of illegality in a concrete case, discouragement is centered only to a future conduct. When the criminal investigative body was deprived of *damaging evidence fruits* in a particular case, they will think twice before depriving the suspect of his rights in later research. The adherents of the discouragement theory do not seek to justify the misplaced acquittal of the guilty (*convinced*) *per se*, but agree that *those above mentioned* have an adverse effect that should be tolerated so as to promote a policy of additional pressure to discourage deviations of official subjects and to protect citizens' rights in other criminal investigations.

In the context of the *exclusionary rule*, two guidelines are outlined by international courts. *Primo*, - “violation involves substantial doubt over the reliability of the evidence”. *Secundo*, - “admission of evidence is in antithesis and substantially damage the integrity of the process” [21, 152]. In summary, the rules of exclusion must be left to the discretion of judges in *concrete cases*.

The question of admissibility for judges is always a matter of law, even if it often requires a preliminary factual assessment [20, 96]. The *Rule of exclusion of evidence* can be found out in the

US Supreme Court's cases, such as *Weeks v. USA, 1914* [22] and *Mapp v. Ohio, 1961* [23]. Some exclusion rules operate regardless of the probationary weight, while others requires the judge to confront the balance between *probationary value* and *potential harm*, or in the language of defenders, *the damages to the interests of the defense*.

In *Funke v. France, 1993*, § 56 [13, 94], ECtHR held that it may be necessary to use intrusive measures to obtain physical evidence in support of the offense or to prosecute the responsible persons. However, these measures follows the conformity of procedures prescribed by domestic law, or in the absence of such compliance, for example the control established by the prosecutor's office on the lawfulness of the police behavior or the specific validation mode of the search report it is contrary to *article 8 of the Convention, LM v. Italy, 2005*, § 32-33.

Point 6) of the SCJ ruling [24] states that the court may order the exclusion of evidence gained by the prosecutor at the criminal investigation stage, only if he/she finds out a substantial or a significant breach of a legal provision on the gathering of evidence which in the circumstances of the case, makes the evidence to prejudice the fairness of the trial as a whole, such as cases of ill-treatment admitted by the officers of the criminal investigation bodies, inhuman and degrading treatment, application of violence, which are cases of absolute nullity of the procedural acts under paragraph (3) article 251 CPC and other.

Omission to exclude evidence obtained illegally (*for example, the evidence gathered without a search warrant, or a statement (testimony) gained without conscientiously and voluntary giving up to on the right to remain silent (right to silence) by the accused*) may result in a violation of the right to a fair trial. However, ECtHR has established that it is not its role to reassess the fact that the national courts have exercised their discretionary power to admit evidence that the accused considers to have been obtained illegally. The Court focuses on whether the whole process was in line with the provisions of the ECHR. In this respect, ECtHR checks out if the accused had the possibility to challenge the admissibility of the evidence and if the judge abused of his discretion to such an extent that the trial was unfair as a whole, *Schenk v. Switzerland, 1988* [25].

The same legal solution was adopted by ECJ in the case *Steffensen* [26, 281], as that it is for the national courts to assess whether, in the light of all the factual and legal material at their disposal, the admission as evidence of the results of the analyzes at issue in the main proceedings implies a risk of breach of the principle of adversarial proceedings, and thus the right to a fair trial.

According to point 1) paragraph (1) article 94 CPC, using in criminal proceedings of evidence obtained through violations stipulated is inadmissible and must be excluded. Relying the criminal conviction verdict on such evidence is contrary to article 6 of ECHR and generates the inequity of the entire procedure, regardless of the probation value of the evidence. Similar arguments were stated by ECtHR in *Harutyunyan v. Armenia, 2007* [13, 174-175], so as that regardless of the impact of the statements gained over the outcome of the criminal proceedings against the applicant following torture, the use of such evidence has given unfairness to the whole process. In *Levința v. Moldova* [27], ECtHR reiterated that, "*it pays special attention to the use in criminal proceedings of evidence obtained through measures found to be contrary to article 3 [...] use as part of evidence in criminal proceedings of statements obtained as a result of torture entails the inequality of the whole procedure, regardless of whether the admission of evidence was decisive for the conviction [...]*".

A number of guiding principles outlines the legal necessity that the prosecutor should ensure the exclusion of the evidence obtained illegally, being confirmed by the article 21 of the CoE *Recommendation on the role of the prosecutor in the criminal justice system* [28].

In this respect, the fact that the ECtHR recognizes the State's obligation to provide qualified legal assistance, we also conclude that the defendant bears a specific obligation in the evidence-taking proceedings, having an active role, such as when the lawyer observes omissions or erroneous data included in the minutes of the procedural action, recording its objections in the respective minutes. If appropriate, the lawyer or the defender will draw a complaint and/or request the exclusion or the nullity of the evidence. [29, 10-20].

ECtHR consistently holds that the participants must challenge the lawfulness of the evidence before the national courts so as to the field of human rights, the *illegality* itself is not a sole condition to call on the safeguards under article 6 of the *ECHR*. In this respect, must be particularly consulted the Court's judgments: *Khan v. UK, 2000; Bykov v. Russian Federation, 2009; Perry v. UK, 2002; Voykin and others. v. Ukraine, 2018; Natunen v. Finland, 2009; Kolu v. Turkey, 2005; Lisovaia v. Moldova, 2018* and other cases concerning fundamental rights and freedoms, especially when the subject in matter includes issues regarding the evidence and criminal proceedings.

CONCLUSIONS

Procedural sanctions fulfill important tasks, goals, and functions in criminal proceedings. Of all procedural sanctions, the nullity is the most important, it can be raised whenever a procedural act, document or activity has taken place without proper respect to the law. Nullity is not the most radical sanction, or as far as possible it allows a remedy to certain deficiencies, and it is drawn only as a result of essential breach of the law.

From a conceptual point of view, the legal doctrine expresses unity in respect to the nullities, especially when it refers to its particularities, features and general conditions.

Referring to the general characteristic of nullity conditions, we must consider that the law sets out precisely the circumstances in which nullity may be raised. Nullities cannot be perceived outside other rules of criminal procedure, they are not abstract, at the same time having a wide field of application.

We must point out that the legislation provides a phased procedure, apparently detailed, but which may present difficulties in the proper and exact application of the provisions of the law. The legislator must opt for the empowerment of the judiciary, in the sense of wider interpretive attributions to unify the judicial practice, as well as by providing a broad framework of safeguards to human rights and fundamental freedoms. So, the use of tools for the uniform application of the provisions of the criminal-law legislation is an appropriate legal remedy.

The four consecutive and main effects of nullity are: direct effect, indirect effect, reparative and preventive effect. Therefore, the null act does not produce the effects of the valid act. The main directions raised by the doctrine displays on the extensive effect of canceling concurrent, previous or posterior acts.

The objective reality suffers irreversible changes in terms of knowledge immediately after discovering the proof. However, by the law, legal mechanisms have been put in place to counteract, if not fully effective, then of the minimum possible safeguards, by laying down the rules in article 94 of the CPC, regarding *evidentiary rules*.

Regarding the exclusion of illegal evidence, we conclude that there are no outlined procedural mechanisms that would guarantee the *physical exclusion of evidence*. We share the opinion of the authors according to which a remedy is to give certain powers to judges, while respecting the principle of proportionality between the competences of the judges in the pre-trial proceedings on one hand, and on the other hand the independence of the criminal investigation body and the prosecutor in the process of gathering of evidence (*evidence-taking*).

Following the research, it is concluded that the conduct that addresses influences of any kind or the use of procedures forbidden by law, including torture, is not only inappropriate, but it is primarily a matter of a serious threat to the democratic state and the rule of law.

At the same time, we conclude against the opinions of separation of the exclusion of evidence from the sanction of nullity. The last one certainly has some distinct peculiarities; it has a progressive evolution from the point of the jurisprudential creation. However, we cannot agree that this is a distinct institution, because exclusion of evidence *de facto* is an indispensable part of the nullity.

Following the summary of the arguments, we conclude that the *ECtHR* does not lay down rules on the admissibility of evidence as such; they are covered by regulations protected under national law. Basically, the Court does not exclude evidence and does not refer to them as such but

to the fairness of the proceedings or of the trial as a whole. However, shortly, absolute negligence of admissibility rules may lead to violations of the right to a fair trial.

Finally, the procedural nullity ranks the main place in the system of procedural sanctions; it is applicable each time when a procedural act, document or procedural activity was carried without strict compliance to the law.

At the same time with the irremediable change of objective reality and of the consciousness of the participants to the proceedings caused by the *physical discovery* of the information (*evidence*), *restitutio* in the previous situation is objectively inconceivable, but in order to effectively protect the rights of the person during the criminal proceedings, the law establishes safeguards under article 94, 251 and others of the Criminal Procedure Code.

In order to improve the criminal procedure law, we made the following proposals for immediate implementation:

- a) empowering the investigating magistrate (*Judge*) and/ or the court of first instance in the judicial appeal (*in control review*) of the prejudicial proceedings, or as by case may, during the preliminary hearings, with competences of *physical exclusion of the evidence*;
- b) reforming the institution of the investigative judge (*investigating magistrate/judge*) by exchange of good practices (e.g.- freedoms and rights judge);
- c) implementing clear legal delimitation of the effects of nullity;
- d) implementing legal regulation of the extensive effect of the invalidity of the acts performed interrelated with acts declared null;

REFERENCES:

1. Criminal Procedure Code of MSSR , approved on 24.02.1961, *Vestile Sovietului Suprem al RSS Moldovenești*, No. 10, 1961, with additions and changes by 01.07.1963, Chișinău: Ed. de Stat Cartea Moldovenească, 1963 (cancelled), 372 p.
2. CIOBANU P., *Codul penal & Codul de procedură penală*, București: Rossetti International, 2017, 560 p.; see LUPA ȘCU D., *Noul Cod de procedură penală*, București: Ed. Premium, 2016, 464 p.
3. NEAGU I., *Tratat de Procedură Penală. Partea Generală*, Ed. a III -a, București: Universul Juridic, 2013, 760 p.
4. Legea (Law) no. 3 of 25.02.2016 “cu privire la procuratură” (on prosecution), published on 25.03.2016, Official Journal nr. 69-77 article 113, in force 01.08.2016
5. Decision of the criminal section of Chisinau Court of Appeal no. 21r-122/15 of 10.02.2015, Archive of the Chisinau Court of Appeal
6. Author's note: see the explanations of the SCJ no. 31 of 24.10.2003, “cu privire la unele chestiuni apărute în practica judiciară în legătură cu punerea în aplicare a Codului Penal și Codului de Procedură Penală”, available in Ro: http://jurisprudenta.csj.md/search_hot_expl.php?id=19, visited 24.04.2016; see the CPC of Romania, 1937 edition; see the explanations IONESCU –DOLJ I., *Curs de procedură penală Română*, București: Ed. Socec & Co s.a, 1937, p.455-457 (595 p.); see the procedure of criminal trial according to article 364¹ CPC
7. PĂVĂLEANU V., *Drept Procedural Penal. Partea Generală*, București: Lumina Lex, 2001, 520 p.
8. КОКОРЕВ Л., §.а., Уголовно-процессуальные акты, Воронеж: Издательство Воронежского Университета, 1991, 192 p.
9. Decision of the criminal section of Chisinau Court of Appeal no. 21r-681/15 din 09.07.15, Archive of the Chisinau Court of Appeal
10. ROTEA N., *Termenele și actele procedurale în procesul penal*, Chișinău, 2009, 215 p.
11. Decision HCCJ criminal section nr.1857 in VASILIU Al., *Nulitatele în procesul penal. Practică judiciară*, București: Ed. Hamangiu, 2006, 250 p.
12. Decision of the specialized college of Chisinau Court of Appeal no. 21r-272/15 din 14.04.2015, Archive of the Chisinau Court of Appeal
13. McBRIDE J., *Drepturile omului și procedura penală. Jurisprudența Curții Europene a Drepturilor Omului*, Chișinău: Tipografia Centrală, 2009, 324 p.
14. ALDISERT R.J., *The judicial process*, St. Paul: West publishing co., 1996, 790 p.
15. Constitution of USA, available: <http://forumulconstitutional.ro/download/constitutia-s-u-a.pdf> , visited 10.10.2017

16. Silverthorne Lumber Co. v. USA, 251 USA 385, 40 S. Ct. 182, 64, L.Ed. 319 (1920), available:
<https://www.law.cornell.edu/supremecourt/text/251/385>, visited 22.04.2016
17. Nardone v. USA 308 USA 338, 60 S.Ct. 266, 84 L. Ed. 307 (1939), available:
<https://www.law.cornell.edu/supremecourt/text/308/338>, visited 22.04.2016
18. Wong Sun v. USA, 371 USA 471, 83 S.Ct. 407, L. Ed. 2d 441(1963) available:
<https://www.law.cornell.edu/supremecourt/text/371/471>, visited 22.04.2016
19. Fox v. Chief Constable of Gwent, 1986 1 AC 281, HL., available: <http://swarb.co.uk/fox-v-chief-constable-of-gwent-hl-1986-2/>, visited 17.05.2016
20. ZUCKERMAN A., ROBERTS P., *Criminal evidence*, New York: Oxford University Press, 2004, 712 p.
21. ZAPALLA S., *Human rights in international criminal proceedings*, New York: Oxford University Press, 2003, 280 p.
22. Weeks v. USA, 232 USA 383 (1914), available:
<https://supreme.justia.com/cases/federal/us/232/383/case.html>, visited 22.05.2016
23. Mapp v. Ohio, 367 USA 643 (1961), available:
<https://supreme.justia.com/cases/federal/us/367/643/case.html>, visited 22.05.2016
24. SCJ case law no.12 din 24.12.2012, “cu privire la unele chestiuni ce vizează participarea procurorului la judecarea cauzei penale”
25. Schenk v. Switzerland, 1988, available: <http://hudoc.echr.coe.int/eng?i=001-57572>, visited 15.05.2016
26. Proceedings against Joachim Steffensen, c-276/01, 10.04.2003 in KLIP A., *Dreptul penal european, Ed. a II – a*, Chișinău: Cartier, 2014, 582 p.
27. Levința v. Moldova, 16.03.2009, available:
[http://justice.md/file/cedojudgments/Moldova/LEVINTA%20\(ro\).pdf](http://justice.md/file/cedojudgments/Moldova/LEVINTA%20(ro).pdf), visited 24.05.201
28. The CoE Recommendation on the role of the prosecutor in the criminal justice system, available:
<https://rm.coe.int/16804be55a>, visited 15.03.2018
29. Decision of the Council of the Moldovan Bar Association no.2 of 30.03.2012, *Ghidul avocatului în apărare*, in Revista Avocatul Poporului no.3-4, 2012, available in Ro: <http://www.docfoc.com/revista-avocatul-poporului-nr-3-4-2012>, visited 24.04.2016

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