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Wprowadzenie

Przez długi czas badania w zakresie informacji jako zasobu gospodarczego były prowadzone poza ramami badań teorii ekonomicznej. Ze względu na wzrost znaczenia zasobów informacyjnych i technologii w gospodarce w ostatnich dziesięcioleciach, naukowcy zaczęli zwracać większą uwagę na badanie roli informacji w społeczeństwie.

Uważamy aprobację badań w naukometrii za część systemu informacyjnego, którego wyniki mają pewne formy prezentacji oraz mogą być porównywane i oceniane inaczej. Jeden z pierwszych kroków w przeniesieniu nauki do przestrzeni cyfrowej obejmuje wdrożenie nowych narzędzi oceny wpływu publikacji naukowych które otrzymały nazwę altmetryki. Metody altmetryczne, pomimo ich nazwy, są faktycznie, nie alternatywą, lecz uzupełnieniem tradycyjnych metod pomiaru aktywności naukowej. Pozwalają one podejść do rozwiązania tak ważnego problemu jak ocena zainteresowania opinii publicznej najnowszymi wynikami badań naukowych, które otrzymały zasięg w Internecie.

Wskaźniki cyfrowe do rozpowszechniania artykułów PNAP zapewniają systematyzację historii cyfrowej, na przykład liczbę pobrań i statystykę przeglądania strony internetowej, hiperłączy i odnośników w narzędziach do zarządzania linkami oraz liczbę linków w różnych sieciach społecznościowych.

W ramach cyklu badań naukowych, one rozwijają i rozpowszechniają treści informacyjne dotyczące badań naukowych mające na celu opracowanie i ulepszenie systemów metadanych, repozytoriów i procesów bibliograficznych obejmujących wyniki niekonwencjonalnych badań. Równoległe z badaniami i rozwojem procesów wsparcia dla takich nowych źródeł identyfikacji cyfrowej jak ORCID dla badaczy lub DataCite dla zbiorów danych, informacje badawcze umożliwiają naukowcom zapisywanie lub ponowne wykorzystywanie danych w przedmiotowych lub instytucjonalnych repozytoriach.

Nauka w kontekście gospodarki cyfrowej otrzyma nowe sposoby oceny jej wydajności, która będzie uwzględniała zarówno stanowisko społeczności ekspertów, jak i zainteresowanie opinii publicznej.

Prof. DSc Serhii Hushko

Introduction

For a long period of time, the study of information as an economic resource was taken out of the framework of the economic theory research. Due to the increase of the importance of information resources and technologies in the economy in recent decades, scientists have begun to pay more attention to the study of the information role in the society.

We consider the approbation of research in scientometrics as part of an information system, the results of which have certain forms of presentation, can be compared and are evaluated differently. One of the first steps in the transition of science to digital space involves the implementation of new tools of assessing the impact of scientific publications which have received the name altmetrics. Altmetrics methods, in spite of their name, are, in fact, not alternative, but complementary to traditional methods of measuring scientific activity. They allow approaching the solution of such an important problem as an assessment of the interest of the general public to the latest scientific research results that have received coverage in the Internet.

Digital metrics for the dissemination of scientific and academic products in the PNAP magazine provides for the systematization of digital history, for example, the number of downloads and viewings, hyperlinks and references in the link management tools, the number of links in various social networks.

As part of the research and scientific life cycles, they develop and disseminate academic research information contents aimed at developing and improving metadata systems, repositories and bibliographic processes covering non-traditional research results. In parallel with the research and development of the support processes for such new sources of digital identifiers as ORCID for researchers or DataCite for data sets, research informational contents allow researchers to save or reuse data in subject or institutional repositories.

Science in the context of digital economy will receive new ways to assess its performance, which will be associated both with the position of the expert community and the interest of the public.

Prof. DSc Serhii Hushko

SOCIAL SCIENCES

LEVELS OF HEAVY METALS IN SEVERAL RIVERS OF THE WESTERN BUG AND DNIESTER BASINS IN THE LVIV REGION (WESTERN UKRAINE)

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Abstract. Lviv region, one of the most urbanized and industrialized regions of Western Ukraine, faces environmental problems, including pollution of surface waters. The study was aimed to investigate the levels of heavy metals (Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb and Zn) in the waters of three tributaries of the Western Bug River (Poltva, Rata and Kamyanka), as well as in the Dniester River and its two tributaries (the Zubra and Vivnya rivers) within the Lviv region. The results show that the degree of contamination of the Western Bug tributaries with heavy metals is considerably higher at the mouths of the rivers compared to river sources. In particular, metal concentrations at the mouth of the Rata River were 1.23–3.98 times higher than at its source, while water samples at the mouth of the Kamianka River were characterized by higher levels of Fe, Mn, Zn and Cd (2, 12–6.55 times) compared with the source of the river. Concentrations of several heavy metals, especially Fe, exceeded the maximum allowable levels in the waters of the analyzed rivers. Results of the study suggest a significant anthropogenic load in the catchment areas of the analyzed rivers within the Lviv region.

Keywords: heavy metals, surface waters, Lviv region, Western Bug, Dniester.

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Introduction

Surface water resources can be adversely affected by virtually all types of human activity. Water quality of rivers, lakes and other reservoirs is influenced by pollution from industrial facilities, discharges from sewage treatment plants or seepage from landfills, as well as diffuse pollution from agricultural activities and deposition from the atmosphere due to

both precipitation and dry fallout. The main polluters of surface waters are industrial, mining and refinery enterprises, animal husbandry and irrigated agriculture (*Glińska-Lewczuk et al., 2016; Bojarczuk et al., 2018*).

Anthropogenic load leads to a significant decline in freshwater quality, which has been documented for many countries, including Ukraine (*Burgess et al., 2009; Lenart-Boroń et al., 2017; Vystavna et al., 2018*). The environmental consequences of deteriorating water quality such as eutrophication and the degradation of sensitive aquatic ecosystems are particularly relevant for small rivers, which are important components of regional landscapes. Of all the pollutants released into the aquatic environment from anthropogenic sources, heavy metals are amongst the most hazardous because of their persistence in the environment, and also due to the high toxicity, mutagenicity and carcinogenicity of many of them (*Al-Saleh et al., 2017; Pratush et al., 2018; Bharatraj and Yathapu, 2018*). Because of the potential of some heavy metals for long-range transport and subsequent deposition on land and surface waters, metal contamination can be found in water bodies remote from the emission sources.

Lviv region, being one of the most urbanized and industrially developed regions of Western Ukraine, simultaneously faces environmental problems, including surface water pollution arising from oil production and refining, emissions from enterprises of various industries and inefficient waste management (*Mnykh, Sokil, 2014; Lozynskyi et al., 2017; Vystavna et al., 2018*). In addition, agricultural runoff from cultivated lands and livestock farms also contributes to the pollution of surface waters in the region. Water contamination with debris, nutrients, persistent organic pollutants, oil and heavy metals due to anthropogenic causes leads to physical alterations and destruction of habitats, loss of biodiversity of aquatic ecosystems and a significant reduction in the use of water bodies for recreational purposes (*Vignati et al., 2013; Antonyak et al., 2015; Hoivanovych et al., 2018*).

Reserves of natural surface water in the Lviv region contain more than 8,950 watercourses, including rivers, streams and springs with a total length of 16,343 km. The Western Bug River and the Dniester River with a network of branched tributaries belong to the main rivers of the region.

The purpose of this study was to investigate the levels of heavy metals (Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb and Zn) in the waters of the left tributaries of the Western Bug River (the Poltva, Rata and Kamianka rivers), as well as in the Dniester River and its two tributaries: the Zubra River (left tributary) and the Vivnya River (right tributary). The catchment areas of these rivers are located in different parts of Lviv region.

Materials and methods

Six rivers flowing through different areas of the Lviv region were selected to study the concentration of heavy metals. One of them, the Dniester River, belongs to very large rivers, the other two (the Poltva River and the Rata River) can be classified as the large rivers (*Khilchevskyi et al., 2018*), and the other three (the Kamianka River, the Zubra River and the Vivnya River) belong to the small rivers. Brief characteristics of the rivers and localization of sampling sites are given in Table 1.

The analysis of water samples were conducted in summer-autumn period in accordance with standard water quality testing methods (*Rice et al., 2012*). The samples were taken from the surface horizon of water from a depth of 0.5–0.7 m using plastic samplers of 1 dm³. Water was filtered through a membrane filter and the concentrations of cadmium (Cd), chromium (Cr), cobalt (Co), copper (Cu), iron (Fe), manganese (Mn), nickel (Ni), lead (Pb) and zinc

(Zn) were determined by atomic absorption spectrophotometry. The measurements were carried out using a C-115PK Selmi (Ukraine) spectrophotometer at wavelengths corresponding to the absorption maximum of each of the metals according to standard methods (Novikov *et al.*, 1990). The metal content in the water was presented as the mean, minimum and maximum concentrations for each sampling point.

Table 1

Characteristics of the rivers and localization of sampling sites selected for the study

River characteristics		Sam- pling site No	Localization of sampling sites
Poltva River	Length 60.0 km, catchment area 1,440 km ² ; flows within the Pustomyty and Busk districts of the Lviv region	1	sampling was carried out in the vicinity of the city of Lviv
		2	river mouth, the city of Busk
Rata River	Length 76.0 km, catchment area 1,820 km ² ; flows within the Zhovkva and Sokal districts of the Lviv region	3	river source, sampling was carried out downstream of the city of Rava-Ruska
		4	river mouth, the village of Mezhyrichcha
Kamianka River	Length 38.0 km, catchment area 142 km ² ; flows in the Zhovkva and Kamianka-Buzka districts of the Lviv region	5	river source, sampling was carried out downstream of the village of Kulykiv
		6	river mouth, sampling was carried out downstream of the city of Kamianka-Buzka
Dniester River	Length 1360 km, catchment 72,100 km ² ; in its upper course, the river flows through the Lviv region	7	sampling was carried out at a section of riverbed near the village of Velyn (Mykolaiv district) located 40 km south of Lviv
Zubra River	Length 46.0 km, catchment area 242 km ² ; originates and flows in the southern part of the city of Lviv; flows through the Pustomyty and Mykolaiv districts of the Lviv region	8	water samples were taken in the vicinity of the village of Zubra in Pustomyty district at a distance of 12 km from the centre of Lviv
Vivnya River	Length 33.0 km, catchment area 80 km ² ; flows in the Mykolaiv districts of the Lviv region	9	water samples were taken at a section of riverbed near the village of Vivnya in Stryi district located about 60 km south of Lviv

Concentrations of heavy metals in river water were compared with the maximum allowable levels (MAL) of these substances in surface waters intended for human use and fisheries activities. In accordance with the quality standard of surface waters adopted in Ukraine, the MAL values for the studied metals are as follows ($\mu\text{g/L}$): Fe: 300; Mn: 100; Zn: 1000; Cu: 1000; Cr(VI): 50; Ni: 100; Co: 100; Cd: 5 (in water for fish farming); Pb: 30 (Kofanov and Ognyanik, 2008; Klymenko *et al.*, 2012).

Results and discussion

According to the results obtained in the study, the concentrations of heavy metals in analyzed river waters of the Lviv region differ depending on the metal being studied, the localization of the sampling site and human activity in the catchment areas. Among the metals analyzed, the iron concentration reached the highest levels in the waters of all the water bodies studied. The mean Fe concentration in the rivers ranged from 302 $\mu\text{g/L}$ (in water of the Vivnya River) to 1440 $\mu\text{g/L}$ (in the mouth of Kamianka River) (Tables 2, 3). The second highest mean concentration of Fe after the Kamianka River was recorded in the water of the Poltva River, namely of 790 $\mu\text{g/L}$ (Table 3). In both of these studied sites, the iron content of water was significantly higher than the maximum allowable level in surface waters intended for human use, namely, 4.8 and 2.63 times, respectively. Iron content of water in other rivers (except for the Vivnya River, in which the Fe level was almost equal to MAL) also exceeded the MAL value, but to a lesser extent.

With regard to the waters of the Western Bug tributaries, our data show that the quality of water in Poltva, Rata and Kamianka rivers largely depends on the site of sampling. The concentration of a number of heavy metals was found to be significantly higher at the mouths of all three rivers as compared to their sources (Table 2).

Table 2

Concentration of heavy metals in the tributaries of the Western Bug River within the Lviv region, $\mu\text{g/L}$

Analyzed metal		Poltva River		Rata River		Kamianka River	
		Site 1	Site 2	Site 3	Site 4	Site 5	Site 6
Fe	Mean	490	790	455	580	400.5	1440
	Value range	480–500	480–1100	330–580	500–660	130–671	1430–1450
Mn	Mean	80.7	101.0	54.1	214.7	46.4	133.6
	Value range	77.2–84.2	84.2–117.7	52.3–55.9	223.4–206	42.3–50.5	121.3–145.8
Zn	Mean	44.6	46.1	10.2	18.7	10.2	66.8
	Value range	44.5–44.7	44.7–47.5	2.30–18.1	6.3–31.1	9.0–11.3	55.4–78.2
Cu	Mean	12.4	14.7	5.3	4.25	19.9	7.05
	Value range	6.5–18.3	11.1–18.3	4.4–6.2	1.8–6.7	8.5–31.3	6.2–7.9
Cr	Mean	20.7	20.8	4.85	12.75	18.5	10.5
	Value range	3.9–37.4	4.1–37.4	4.3–5.4	5.6–19.9	17.6–19.4	2.6–18.4
Ni	Mean	26.15	27.75	13.75	17.65	21.95	22.8
	Value range	23.4–28.9	23.4–32.1	13.2–14.3	16.5–18.8	18.8–25.1	21.1–24.5
Co	Mean	12.1	13.75	10.5	12.9	13.8	15.3
	Value range	11.8–12.4	12.4–15.1	6.8–14.2	10.5–15.3	12.1–15.5	14.1–16.5
Cd	Mean	6.5	6.85	3.2	4.5	6.15	13.15
	Value range	6.5–6.6	6.5–7.2	3.1–3.3	4.3–4.8	6.1–6.2	6.6–19.7
Pb	Mean	29.5	30.1	25.5	35.6	34.5	27.7
	Value range	26.6–32.4	27.7–32.4	17.8–33.2	16.0–54.2	26.7–42.3	19.0–36.4

This applies primarily to the water of the Rata River at site 4 (mouth of the river), which is characterized by a higher level of nearly all analyzed metals (except Cu) compared to site 3 (river source). Namely, the concentrations of Fe, Mn, Zn, Cr, Ni, Co, Cd and Pb were, respectively, 1.27, 3.98, 1.83, 2.63, 1.28, 1.23, 1.41, and 1.38 times higher at site 4 than at site 3. Similarly, in the water of the Kamianka River, the concentrations of Fe, Mn, Zn, and Cd were, respectively, 3.60, 2.88, 6.55, and 2.12 times higher at site 6 (river mouth) compared to site 5 (river source). In the water of the Poltva River, the concentrations of Fe, Mn, Cu and Co were higher by 1.61, 1.25, 1.19 and 1.14 times at site 2 as compared to site 1.

At the same time, the mean Mn concentration in the mouths of the Rata and Kamianka rivers exceeded the MAL value for this metal by 2.15 and 1.34 times, respectively (Table 2). The mean Pb concentration in the Western Bug tributaries was close to the MAL value; however, the threshold level was exceeded by 1.19 and 1.15 times in the waters of the Rata River's mouth (site 4) and at the source of the Kamianka River (site 5), respectively. In the waters of the Poltva and Kamianka rivers, the mean Cd concentrations were higher than the maximum permissible levels at all the analyzed sites.

Results regarding high levels of heavy metals in the mouths of tributaries of the Western Bug River may indicate a high level of pollution in the catchment areas of the studied rivers. Within the Lviv region, the analyzed rivers flow through areas with a high level of industrial activity. Namely, these are Busk and Sokal districts of Lviv region. In particular, 14 large enterprises operate in Busk district (mainly in the city of Busk), which represent the food, woodworking and furniture industries, as well as the production of machinery and equipment. Within the Sokal district, the coal industry is mostly developed (there are 9 mines and Central concentrating factory). In addition, the Kamianka River flows for several kilometres within the city of Kamianka-Buzka, and the mouth of the Poltva River is located in the territory of Busk. These facts can explain the high level of analyzed heavy metals in the water of the rivers sampled at sites 2, 4 and 6. The high level of contamination of the Western Bug tributaries with heavy metals has also been reported by other authors (*Khilchevskiy et al., 2018*).

Among the watercourses analyzed in this study, the Vivnya River belonging to the Dniester basin was almost the least contaminated with heavy metals. In particular, the levels of Fe, Cu, Zn, Co, Cd and Pb in the water of Vivnya River, were significantly lower compared to the water of other small rivers (the Zubra and Kamianka), as well as compared to the large rivers that were analyzed. However, the level of Fe in its water was close to the maximum allowable level (Table 3). At the same time, with the exception of this metal, none of the other metals analyzed at site 9 exceeded the MAL values. It can be considered that the relatively low concentration of most metals in the water of the Vivnya River is due to its geographical position, since the river flows mainly in the agricultural area and its riverbed is remote from the industrial cities of the Lviv region.

In contrast, the Zubra River, the left tributary of the Dniester River, which originates and flows in the southern part of the city of Lviv, is characterized by a significantly higher level of contamination with heavy metals compared to the Vivnya River. According to the obtained results, the concentration of all analyzed metals in Zubra's water is 1.4–4.3 times higher than in the water of the Vivnya River (Table 3). At the same time, the mean concentrations of Fe exceeded the MAL by 2.5 times, while the Cd concentration was close to the maximum allowable level.

Table 3

Concentration of heavy metals in the waters of the Dniester River and its two tributaries (the Zubra and Vivnya rivers) within the Lviv region, $\mu\text{g/L}$

Analyzed metal		Dniester River	Zubra River	Vivnya River
		Site 7	Site 8	Site 9
Fe	Mean	576	750	302
	Value range	532–620	678–822	274–330
Mn	Mean	45.5	42.6	26.6
	Value range	38.7–52.3	35.4–49.8	12.26–28.7
Zn	Mean	57.8	23.4	11.0
	Value range	42.6–73.0	19.25–27.6	6.18–15.8
Cu	Mean	15.8	22.0	5.16
	Value range	9.1–22.4	16.2–27.8	3.4–6.92
Cr	Mean	23.5	28.4	20.6
	Value range	12.4–34.50	24.6–32.14	14.1–27.0
Ni	Mean	17.8	21.3	15.8
	Value range	12.0–23.5	19.6–23.0	9.8–21.7
Co	Mean	14.8	14.2	6.32
	Value range	13.6–16.0	10.4–18.0	5.4–7.24
Cd	Mean	3.67	4.52	2.44
	Value range	3.2–4.14	3.32–5.71	2.19–2.68
Pb	Mean	14.10	18.7	9.15
	Value range	8.32–19.8	16.0–21.4	5.7–12.6

As regards to the Dniester River, its water at the sampling point (site 7) was characterized by a higher degree of contamination with some metals such as Mn, Zn and Co as compared with tributaries, the Zubra River and the Vivnya River. However, the levels of most metals that were analyzed did not exceed the maximum allowable levels. The exception was the concentration of Fe, which exceeded the MAL value by 1.92 times (Table 3). In general, the level of contamination of the Dniester River with most heavy metals analyzed at the sampling point (the village of Velyn in the Mykolaiv district) was found to be comparable to the level of pollution of the Western Bug tributaries. At the same time, the obtained results indicate a significant anthropogenic load in the catchment areas of the analyzed rivers within the Lviv region.

Conclusions and suggestions

1. The level of heavy metal contamination of the waters of the Western Bug tributaries (the Poltva, Rata and Kamianka rivers) was found to be considerably higher at the mouths of the rivers in comparison to the river sources. In the water of the Rata River's mouth, the concentrations of Fe, Mn, Zn, Cr, Ni, Co, Cd and Pb were respectively higher by 1.27, 3.98, 1.83, 2.63, 1.28, 1.23, 1.41, and 1.38 times than at the river source. At the mouth of the Kamyanka River, the concentrations of Fe, Mn, Zn and Cd were respectively higher by 3.60, 2.88, 6.55 and 2.12 times than in water samples at the source of the river (downstream of the village of Kulykiv), while in the water of Poltva River sampled at the river mouth (the city of Busk), the concentrations of Fe, Mn, Cu and Co were from 1.14 to 1.61 times higher than in water sampled in the vicinity of the city of Lviv.

2. In the waters of the analyzed rivers of the Lviv region, concentrations of several heavy metals exceeded the maximum allowable levels. Namely, the Fe concentration in the Rata, Poltva and Kamianka rivers exceeded MAL level by 1.33–4.8 times, and in the Dniester and Zubra rivers – by 1.92 and 2.5 times, respectively. The mean Mn concentration in the mouths of the Rata and Kamianka rivers exceeded the MAL value by 2.15 and 1.34 times, respectively, while the Cd concentration in the Poltva and Kamianka rivers were higher than the maximum allowable levels by 1.23–2.63 times.

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ASPECTS OF INCORPORATED AND OBJECTIFIED CAPITAL FORMATION**Katerina Riabykina**

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Abstract. The article deals with hierarchic levels of casual factors of enterprise fundamental capitalization. It is proved that organizational competency and sustainability of an enterprise are the criteria of the incorporated level of capitalization which is determined by the set of mental and cognitive factors. The article substantiates that these characteristics are informative for determining the level of organizational abilities that, in their turn, ensure productivity of capital formation processes at an enterprise, and formalization and assessment of which are performed at the financial and accounting hierarchic levels of their formation.

Keywords: economic mentality, capitalization of knowledge, cognitive corporate culture, organizational competency, stability.

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Introduction

Unlike traditional methodology of studying capitalization which is presented by processes of formation, distribution and use of material and financial resources leading to an enterprise's obtaining profits, transition to the strategy-oriented theoretical basis provides change of the research vector. This is conditioned by appearance and the priority impact of new non-financial differentiated capital forms fixing differences in processes of efficient use and accumulation of capital, formation of economic results of capitalization in value-cost categories and means essential changes in understanding the mechanism of their growth. Such focus in studying capitalization goes beyond traditional approaches to its understanding and expands the scientific context by modern approaches, thus enabling explanation of the economic nature and disclosure of the mechanism of obtaining economic results of capital formation in categories of modern theories of strategic management considering modern trends of business-structure development.

Mental and cognitive substantive space of capital formation

Modern economic literature considers study and scientific reasoning of hierarchic levels of casual factors of an enterprise's capitalization (Fig. 1) to be one of the topical research trends.

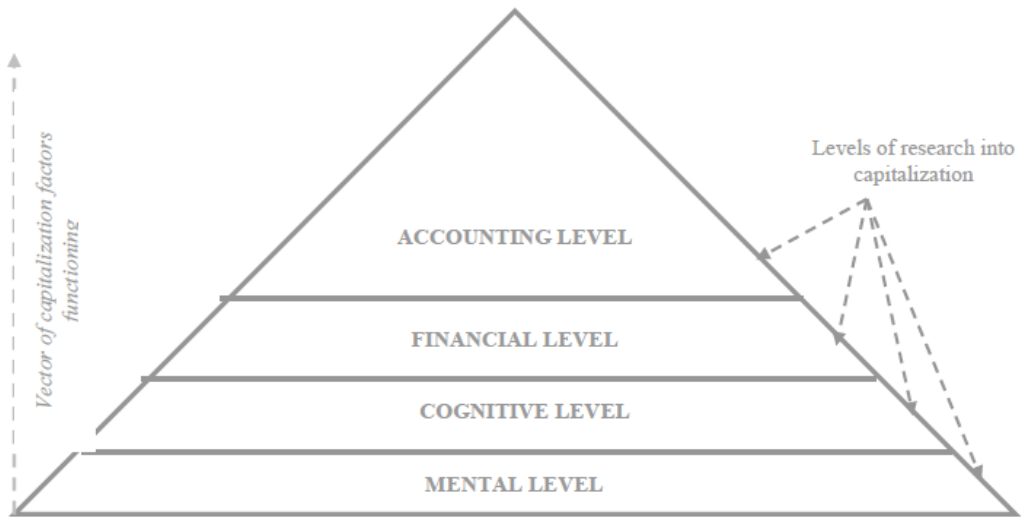


Fig. 1. Hierarchic levels of casual factors of forming fundamental capitalization of an enterprise

The mental level is one of the levels of research into capitalization and, therefore, the focus should be placed on aspects of the mental substantive of capital formation.

Motivation and behavior models that appear during economic activities and determine obtaining targeted results are defined by economic mentality as historically formed individual and public consciousness, specificity of which is determined by the type of the economic epoch, cultural, social, ethnic background and other features of mentality carriers.

Research into the mental component in economics is present, either implicitly or explicitly, in many economic theory trends. However, this agenda is best highlighted in the institutional theory where people's behavior and underlying factors are directly included into the subject of research. The institution meant as a set of rules, habits, means and stereotypes of thinking and behavior of individuals as members of social groups and society as a whole.

T. Veblen notes that if it is necessary for a behavior feature to keep its power and be repeated, it should be based on a habit or inclination (*Veblen, 1984*). While studying the institutions themselves, researchers focus mostly on formal rules of economic structures' functioning. However, they admit a significant influence of non-formal institutions on business entities' behavior. D. North states that formal rules in even the most developed economies make just a small (though very important) part of the set of limitations that create a situation of choice; it is easy to see that non-formal rules permeate all our life (*North, 1997*). Unlike formal institutions, non-formal ones cannot emerge instantly; they are a product of the spontaneous evolution and man's freedom to choose and based on emotional, religious, ethnic factors (*Libman, 2006*).

The basis of economic mentality is formed by fundamental mental sets and values of individuals and communities, their stable psychological aptitudes and reactions, ways of perceiving, feeling and thinking. The process of observing non-formal rules is based on the logic of social capital functioning that results in creating trust and reputation of market participants, confidence in the fact that they all are aware of these (non-formal) rules and

ready to follow them. Non-formal rules do not claim to be universal, they are mostly attached to particular market segments and individual groups of economic entities. Non-formal norms rest upon cultural traditions and values that are fixed in a certain social space and connected with the reproduction of stable behavior practices that have become habits and are fixed in corresponding customs. That is, along with other non-formal institutions, economic mentality determines the institutional environment and is the basis for the formal institution subsystem in the historic continuum. That is why, within the framework of current researches into relations and mechanisms determining a person's or society's choice, the need for addressing the phenomenon of economic mentality as the basis for defining both formal and non-formal institutions and ensuring the vector of interaction and economic entities' development is gaining topicality (Fig. 2).

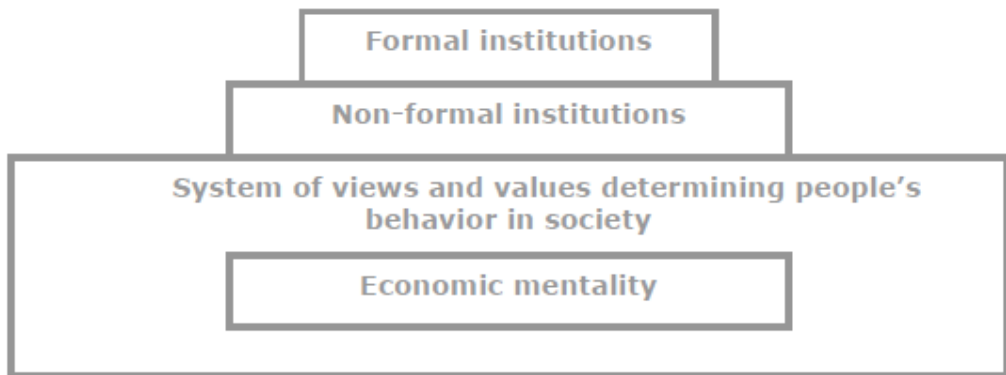


Fig. 2. Economic mentality as an element of the society's institutional structure

Disclosure of the logic of capital formation in the context of knowledge capitalization is one of the trends of studying economic organizational mentality. From this perspective, the research is focused on implicit-explicit organizational cultural knowledge. According to I. Kuznetsov, culture is nothing else but “knowledge transferred on the communication basis” (*Kuznetsov, 2006:9*) (hereinafter translation is ours). A. Haponenko and T. Orlova state that “in a way, organizational culture belongs to group-related implicit knowledge that to the maximum degree forms consciousness of an organization, manages people's behavior and forms itself under their behavior influence” (*Haponenko et al., 2008: 337*). Considering generalized approaches to determining corporate organizational culture, we shall stand for the viewpoint substantiated by B. Salikhov who states that “... corporate culture is “a bundle” of values, principles, motives that can integrally be described as a certain value-substantive knowledge ... made into a model ... and determining socio-economic quality of a corporation” (*Salikhov, 2015*).

Scientists and practitioners are unanimous in accepting the phenomenon of corporate culture and its priority role in ensuring efficiency of business structures. As for assessing the level of corporate culture development and measuring its impact on formation of cost results, in this case the issue is characterized by a high level of uncertainty and absence of a single methodological approach.

Making no pretense to completeness and systemic of covering the existing theory and practice in the present scientific agenda, it is necessary to dwell on the corporate culture assessment.

Research into the mental component in capital formation processes has gained actuality due to substantiation of the economic content of incorporated capitalization the result which is, on the one hand, new knowledge which is the resource for ensuring sustainable growth of economic results and, on the other hand, - formation and development of an enterprise's capabilities intended for increasing efficiency of tangible and intangible assets (objectified capital) on the basis of their unique combinations. That is, assessment of the mental component in the form of corporate culture is directed to achieving the determined results of incorporated capitalization.

B. Salikhov describes "formation of "the cult" of new knowledge" as one of the basic functions of "innovative corporate culture" with the following main principles of its implementation (*Salikhov, 2015*):

- respectful attitudes to creativity and individual creators (individuals and groups) of new ideas and knowledge in particular;
- importance of corporate communication;
- the ability to "get the job done";
- trust.

Implementation of the first principle provides not just a respectful but even responsive attitude of owners and managers to knowledge creators, support by not only company management but also all the company employees. This is a kind of insurance from failures for an innovator. The ethical principle of "respectful attitude to innovators" can become apparent through assigning merit wage rates to innovators, creating special working conditions for them, introducing flexible working hours, etc. In this context, it is appropriate to mention practices of the PJSC *Ilyich Iron and Steel Works* of Mariupol (Metinvest) as an example of significance of the mental component for stimulating innovations in business. Bonus payments from Director's fund to the innovators who suggested energy saving and rational fuel-energy use projects which saved 5 million UAH during 6 months have totaled 24 thousand UAH. The average reward of a Metinvest Board member has made nearly 800 thousand USD. This is a rather typical example of attitudes to innovations in the national business sphere and not connected with traditional excuses for absence of finances for innovation development.

As far as corporate communication is concerned, it is "... the interconnection and interaction process of exchanging activities, information and experience. What differs corporate communication from communication in a wider sense is that in its process there are set goals and particular tasks to be solved" (*Kuznetsov, 2006:185*). Personnel motivation should be aimed at proving that the true value of knowledge is not in personification but in its socialization. Therefore, the enterprise should focus not on the statement "knowledge is power and it should not be shared" but on "free exchange of knowledge is a source of an organization's and an individual's success" (*Haponenko, 2008:344*). Socialization of new personalized knowledge ensures creating synergic efficiency within exchange-communication development that increases greatly the knowledge level of an enterprise. There are many ways of exchange-communication and the problem consists in ensuring sustainability of motivating the personnel to efficient use of existent discourse forms.

The “get the job done” principle is connected with objectification of new knowledge. The ability to provide such objectification underlies formation of an enterprise’s business reputation, its image and brand.

Scientists consider the level of trust to be the generalizing and most significant principle of forming and developing the “cult” of expanded reproduction of new knowledge. Thus, Professor Salikhov determines socio-economic functions of trust in the modern economic system and focuses on the statement that “... trust increases greatly cognitive efficiency of a company employees’ activities and is the basis for the “cult” of new corporate knowledge and one of the key intangible assets of a modern company”. External forms of confidence may take the form of a positive business reputation, a firm’s and its top management’s image, but it is the systemic institution of trust that is a deeper basis of these “surface” assets” (*Salikhov, 2015*). Actualization and priority of reproduction of new organizational knowledge condition the increased role and meaning of trust relations when performing all kinds of inter- and intracompany relations of economic entities.

Generalizing the above argumentation on the priority level of mental factors impacts on both capital formation results and other areas of enterprises’ business activities, the following should be noted. If, in conditions of industrial development, the scientific and technological advance facilitated overcoming overproduction crises on the basis of qualitative renewal of worn-out tangible assets, in post-industrial conditions the problem of overproduction of worn-out and obsolete human capital is solved on the basis of the spiritual-moral progress. Understanding of this conclusion is to provide implementation of an enterprise’s new cultural knowledge system which is characterized by the following:

- a clear idea of new quality of the general directivity of development, a mission and an target function of executives’ and employees’ activities;
- a new quality level of human relationship and interactions that provides efficiency of creative use of human capital;
- new quality of the corporate management style that creates and ensures efficient performance of the value-substantive model of a certain corporate community.

As for aspects of the cognitive substantive space of capital formation, application of conceptual points of the “knowledge economy” theory and their implementation in the general logic of research into capitalization of an enterprise results in necessary use of more universal explanatory substance categories, “an enterprise’s cognitivity” being one of them.

In the management theory a system is recognized cognitive if it is capable of cognizing its surrounding and adapting to it at the expense of knowledge accumulated during performance and learned habits (*Bohdan, 2007*). Cognitive systems enable “... implementing man’s complex behavioral functions; therefore, their use may produce an additional effect when managing strategic works or in decision support systems when working in a complex uncertain environment” (*Bohdan, 2007:96*). As for the economic meaning of “cognitivity”, this scientific agenda still remains understudied and debatable. Its essence is revealed depending on the aspect chosen.

According to A. Nalyvaiko and N. Harashchenko (*Harashchenko, 2003; Nalyvaiko, 2012*), cognition of an organization is treated through the lens of targeted analytical tools and a special point of view on interaction between an enterprise or its components and the external environment. N. Harashchenko notes that “... the term “cognitivity of an organization” enables measuring the company’s ability to comprehend information and transform it into knowledge” (*Harashchenko, 2007:14*). With this thesis implemented into the suggested logic of studying an enterprise’s capitalization, the level of its cognition is characterized by the

ability to detect, identify, assess and transform possibilities of the external environment into formalized knowledge that, in its turn, is the source of development of organizational abilities to combine resources in a unique way and their efficient use in business processes. The substantive thesis of N. Harashchenko's research into "an organization's cognitivity" consists in understanding as "... meta-ability of a company which is a structurally-integrated aggregate of individual skills of cognitive activities and processing information of the organization members and coordination mechanisms for such skills with the help of which the company manages its own sustainability and competency" (*Harashchenko, 2014:19*). That is, "organizational competency" and "organizational stability", or rather the degree (level) of their achievement, may be considered criteria of determining the level of cognitivity of an enterprise.

Studying the economic nature of competency, V. Mashkin defines it as compliance of a person with certain systemic requirements that enables reaching general results. Also, he stresses that a person cannot be competent as such, competency should be treated in relation to a particular system with its requirements. Besides, in his research the author focuses on interaction of individual kinds of knowledge (*Mashkin, 2005*).

Scientific studies distinguish between organizational and individual competencies. But they have a very specific common feature – the ability to do work at the highest professional level, i.e. competently. The difference is in the fact that organizational competency is based on leading and competitive technologies, but the individual one is a set of qualitative features a person obtains as a result of training or labour activities.

Systematization of studies on the organizational competency (*Armstrong, 2010; Beliatskyi, 2011; Dokshanin, 2012; Lankina, 2015; Mashkin, 2005; Skurikhina, 2005*) enables singling out its components: intellectual (basic, is synthesis of knowledge); creative (provides a creative approach to solving business tasks under conditions of uncertainty); organizational (includes skills connecting knowledge with real activities and determining their fulfilment); motivational (contains motives that stimulate a subject to practically implement other components of the competency).

It should be noted that knowledge and abilities are invariant components in the structure of the organizational competency regardless its generic systematization. An enterprise as it is cannot create knowledge. The source and the carrier of knowledge is a person that can disseminate his/her knowledge within a group or an organization as a whole. Interaction of knowledge carriers provides transformation of individual knowledge into organizational one that can be then formalized. After the transformation it becomes part of a product (service). That is why, the ability to ensure efficiency of interaction processes, transfer and exchange of knowledge are separate aspects of organizational competency level assessment. In this context, competency of an enterprise can be defined as the organizational ability showing up in coordination of organizational activities and as a possibility to generate and develop innovative ideas, combine factors of different levels and functional areas of management in combination with individual abilities, knowledge and management systems.

In modern economic literature organizational ability is studied in its direct interconnection with sustainability of an enterprise as the ability to restore balance of the enterprise (*Hrosul, 2007; Suleimanova, 2012*); maintain activities and develop; ensure dynamic consistency (integrity) of elements of the enterprise's internal environment (*Melnyk, 2009*); resist unfavorable external impacts (*Kryvorotov, 2006; Kucherova, 2011; Polishchuk, 2007*); maintain the given state (*Ivanov, 2007*); achieve set goals (*Dubrova, 2010*); be able to adapt (*Aliexsieienko, 2008; Eremeichuk, 2002; Matsova, 2012*).

Conclusions and suggestions

Thus, implementation of the most important function of corporate culture which is connected with increase of the level of organization's cognitivity consists in fulfillment of a complex of permanent measures aimed at development of such economic opinions of the personnel that will raise them above utilitarian needs, interests and goals. Organizational/managerial competency and sustainability are criteria of the incorporated level of capitalization determined by the set of mental and cognitive factors. Generalizing the given approaches, the ability to maintain oneself, to exist may be considered an immanent attribute of an object's sustainability. Definitions of sustainability suggested in economic literature provide specification of the object and time horizon, i.e. sustainability should be prolonged in time and ensure the qualitative state of the object not lower than the initial one.

A modern resource concept that is developing within the strategic management theory forms the basis of the scientific argumentation of the methods of research into an enterprise's capitalization. So, it is sound to treat the strategic nature of sustainability as an indicator of the organizational cognitivity level that, in its turn, conditions its further research in order to provide sustainability of competitive strengths.

The mentioned characteristics are informative for determining the level of development of organizational abilities that, in their turn, ensure productivity of capital formation processes at an enterprise, formalization and assessment of which occur on the financial and accounting hierarchic levels of its formation.

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INTERNAL CONTROL OF ENTERPRISE'S UNREAL ECONOMIC OPERATIONS IN NATIONAL ECONOMY

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Abstract. The problem essence of the unreal economic operations in accounting at enterprises is investigated. The existence danger of the unreal economic operations for the continuous activity of the enterprise is grounded. The practical reasons of the unreal economic operations' appearance in the enterprise's activity are revealed. The main groups of the analytical factors of the unreal economic operations' risk are separated. The methods of the internal control in the part of the analytical factors' control of the unreal economic operation's risk are formed. The safety levels of the monitoring system of the unreal economic operations' risk by the internal control are distinguished. The methods of the internal control are added by the elaboration process of the managerial decisions' recommendations on the safety of cooperation with the doubtful counter-agents.

Keywords: internal control, risk of the unreal economic operation, analytical factors of risk, methods of control, safety of cooperation.

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Introduction

The development of the entrepreneurship activity in the national economy stimulates the appearance of the significant number of management subjects and, as a result, the quantity growth of the economic operations between such subjects. The economic operation is the main indicator of the national economy's business activity, showing the physical movement of assets (capital assets, raw material, materials, goods, money), capital and the appearance of the corresponding liabilities. The main meaning of the economic operation lies in the fact that, due to the result of its action, some incomes or losses may appear at the enterprise, directly influencing the financial result of the enterprise and the following tax obligations before the state. Taking into consideration the negative tendencies of the national economy, dealing with the reduction of the taxation object or the deviation from payment of taxes by the subjects of management, there is a significant risk to become a participant of the unreal economic operation with the dishonest counter-agent. The recognition of such operation to be the unreal (fictitious) one by the controlling bodies is the reason for the losses' withdrawal from the calculation of the taxation object by the income tax or the tax credit from the surplus value tax and for the re-calculation of the tax liabilities together with the fine sanctions for the enterprise itself. In order to protect itself from the negative results of the unreal economic

operations, the enterprise needs to conduct the monitoring of such risk itself at the economic interaction with its counter-agents. It's advisable for the enterprise to organize the work of the internal control's subject for the solvation of the mentioned task. Correspondingly, the formation of the internal control's methods of the unreal economic operations at the national economy's enterprises becomes actual.

The problems' investigations of the internal control's theory in scientific literature are presented by the works of the following leading scientists: A. M. Ahmed (2018), Y. -T. Chang (2019), Yu. A. Dainovsky (2016), O. Dulina (2017), R. Felix (2019), Ya. I. Gluschenko (2017), J. Guo (2019), E. Hiltunen (2019), I. Kopchukova (2018), M. V. Koryagin (2017), T. O. Melikhova (2018), O. V. Murashko (2016), O. O. Razborska (2016), R. O. Savchenko (2014), W. Shu (2018), T. Wang (2018), B. A. Zasadny (2018), B. Zhu (2018). The main researches' directions of the mentioned scientists in the sphere of the internal control have become: the control of enterprises' capital circulation; the control of the foreign economic agreements; the control in the bodies of public authority; the control of the expenditures' efficiency of the local budgets; the control of the accounting risks in IFRS usage; the control in the management system of goods losses; the control of production reserves in the management system of the enterprise's financial safety; the control of financial reporting; the risk factors for the discord of the internal control; the connection between the corporative completeness and quality of the internal control; the influence of the internal control on the financial indicators; the contradictions and the interconnections between the different types of the organizational control and others. However, the problem of the recognition conditions of the economic operations' unreality for the enterprise, due to the blame of the dishonest counter-agent, is left to be poorly investigated. Correspondingly, the methods' research (elaboration) of the internal control of the unreal economic operations between the enterprises of national economy becomes actual.

The article aim is to research the economic-legal phenomenon "unreal economic operation" and to form the main methods for the internal control of the unreal economic operation's risk.

Unreal Economic Operations in Accounting

According to the Abstract 5 of the Article 1 of the Ukraine Law "On Accounting and Financial Reporting in Ukraine" № 996-XIV from 16.07.1999 (later – the Law № 996-XIV), the economic operation is the action or the event, causing changes in the structure of assets and liabilities, private capital of the enterprise.

It is determined by the Abstract 2 of the Item 2.1 of "the Principle on Documentary Provision of Records in Accounting" № 88 from 24.05.1995 (later – the Principle № 88), that the economic operations are the factors of the entrepreneurship and other activities, influencing the state of property, capital, liabilities and financial results.

It is determined by the Part 1 of the Article 202 of the Civil Code of Ukraine № 435-IV from 16.01.2003 (later – CCU), that the law abidance is the person's action, aimed at receiving, changing or stopping of the civil rights and duties.

The law abidance between the juridical persons should be exercised in the written form (Part 1 of the Article 208 of CCU).

The economic operations are reflected in accounting by the way of their unbroken and continuous documenting. Records in the accounting registers are entered on the basis of the initial documents (Item 1.2 of the Principle № 88).

The reason for the accounting of economic operations are the initial documents, created in the written form, containing the information on the economic operations, including the instructions, the Law № 996-XIV and the allowance of the administration (owner) for their conducting (Item 2.1-2.2 of the Principle № 88).

The facts of the economic operations and their documentary formation in the legal field are aimed at receiving, changing or stopping of the civil rights and duties of the enterprise.

The general requirements, the following of which is necessary to abide the law, are established by the Article 203 of CCU, namely: the person, who is exercising the legal action, should have the necessary amount of the civil ability; the law abidance should be exercised in the form, established by the law; the law abidance should be directed at the real coming of the legal results, caused by it.

According to the presented norms of the Law № 996-XIV, the Principle № 88 and CCU, the law abidance is considered to be valid, if the real fact of the enterprise's economic activity is properly documentarily formed.

It is indicated by the Article 234 of CCU, that the legal action, being conducted without any intention to create the legal results, caused by this law abidance, is fictitious. The fictitious law abidance (legal action) is recognized to be invalid by the court. The legal results of the fictitious legal action's recognition to be invalid are established by the law.

The norms of the presented article indicate that the economic operation, being promptly documentarily formed, is registered in the register-books of synthetic accounting and generalized in the indicators of the enterprise's financial reporting, but the fact of which is not confirmed, it is considered to be unreal – fictitious. It means that the initial document has the juridical force only in case of the factual exercising of the economic operation, being confirmed by the proper proofs (physical, economic, legal ones and others).

The main danger of the unreal economic operations in accounting for the enterprise lies in the fact that the controlling bodies qualify the losses for such operations as the fictitious ones – the illegal reduction of the tax liabilities before the state. It is determined by the Article 111 of the Tax Code of Ukraine № 2755-VI from 2.12.2010, that in case of violation of the laws on problems of taxation and other legislation, which control's following is put on the controlling bodies, such types of the juridical responsibility are used as: financial; administrative; criminal ones.

The notion “unreal economic operation” should be understood as the very economic operation of the asset movement, which is documentarily formed, according to the requirements of the valid legislation, but the factual contents and form of such operation cannot be exercised, due to the absence of the necessary economic or legal possibilities of the enterprise (counter-agent). In such interpretation the main attention is paid at the fact of the economic operation's conducting and its economic-legal contents, but not at the documentary formation of such operation.

The main characteristic features of the unreal economic operations with the enterprise's counter-agent may be: the absence of business aim of the economic operation; the absence of time for production of the certain amount of finished products; the absence of private production capacities (equipment), place of storage (storehouses), transportation (transport means) of the concrete amount of raw material, finished production, goods; the absence of technical personnel of the corresponding qualification; the absence of the factual payments of wages and, correspondingly, the restraining of taxes and dues; the absence of the legitimate right (allowance documents and licenses) for the production of products in the concrete place and time (the reporting period); the supply (sale) or the receipt (buying) of a commodity, the

origin of which is not confirmed by the fact of its legal entrance into circulation; the supply (sale) of the finished product, the production of which is not really declared; the type of the counter-agent's activity is not foreseen by the regulations and is not assigned to CEA; the counter-agent's absence at the juridical address; the unprofessional character of the economic operation; the absence of the cost payment for the supplied products, goods, operations, services; the lack of property of the liquidated counter-agent, etc. The presented characteristic features of the unreal economic operations allow to fix the analytical components of risk.

The risk of the unreal economic operation is the measure of the enterprise's expected losses of the portion of its expenditures in calculations of the taxation objects, due to the unforeseen actions of the counter-agents, dealing with its illegal activity, the facts' untrustworthiness of the economic operation or its incomplete documentary formation.

Internal Control of the Unreal Economic Operations' Risk

In order to avoid any danger from the unreal economic operations, it's advisable to pass the presented problem to the competence of the internal control at the enterprise. The internal control should conduct the monitoring of the doubtful economic operations, containing the risk of the economic operations' unreality, because there is a lack of knowledge on the internal control's methods of the unreal economic operations and they are not systematized, then, the subject of the internal control needs to elaborate the corresponding methods independently.

The subject of the internal control at the big and middle enterprises may be one of the following structural subdivisions: "the Service of Enterprise Safety" or "the Internal Audit". In a simpler form, at small enterprises, such subject may be the worker of the juridical department or the accounting service of the enterprise. The risk monitoring competence of the unreal economic operations in the sphere of cooperation with the enterprise's counter-agents belongs to one of such subjects.

The internal control's object of the unreal economic operations is the totality of facts, demonstrating the causative-resulting connection with the illegality, invalidity of the fact and the untrustworthiness of the documentary formation of the economic operation between the enterprise and the counter-agent (the supplier of goods, operations, services). The components of the control object subordinate mainly to the counter-agent, according to their location and subordination. A special group of the risk operations are the incommmodity operations, connected with the advertisement (the payment-free distribution of goods), marketing, informational-consultative services and others. A special block of risk is the presentation of services or operations by those organizations which do not have the private production capacities.

The main idea of the internal control's methods should be based on the interpretation of the notion "unreal economic operation" through the influence (connection) understanding of separate economic or legal factors in the economic activity of the counter-agent on the legality and the substantiality of the joint economic operation for the enterprise.

The strangeness of such methods lies in the fact that it is necessary to control (to investigate) those phenomena and processes that are located behind the borders of the enterprise. The access to the information base on such object of control needs the additional communications with the counter-agent or the use of the official information sources from the third persons.

According to the contents of the internal control's object, the monitoring system should investigate the risk of the economic operation's unreality at the definite levels of safety, which indicate the guaranty level of the economic operation's reality for the enterprise. The action of the monitoring system, expressing the consequent control over the risk analytical factors of the economic operation's unreality, is advisable to be divided into three levels:

The first level of safety - "the Legality of the Counter-Agent's Activity" - is the actions' totality of the internal control's subject, directed at the controlling research of the external factors - the legal reasons for the conducting of the counter-agent's continuous economic activity. The presented level of the internal control's monitoring system foresees the systematic supervision over the state of the following risk's analytical factors:

- 1) the legitimacy of the organizational-legal form of the enterprise (counter-agent);
- 2) the legality of products' production (allowance documents and licenses) in the concrete place and time (the reporting period);
- 3) the arrest on property of the enterprise (counter-agent);
- 4) the counter-agent is in the state of the activity stopping;
- 5) the presence of the court processes to the counter-agent from the third persons;
- 6) the disparity between the factual activity type of the counter-agent and the established regulations and the selected CEA;
- 7) The absence of the counter - agent's factual location at the juridical address.

The main methods in the operation of the internal control's subject for this level of safety are: the informational inquiries to the counter-agent, on the subject of the documentary legality's confirmation of his (her) activity's separate positions; the checking of information on the counter-agent in the open informational resources of the state power bodies; the normative checking of the declared positions' correspondence about the counter-agent to the factual state of things of his (her) economic activity and other methods.

The second level of safety - "the Confirmation of the Economic Operation's Fact" - is the actions' totality of the internal control's subject, directed at the controlling research of the counter-agent's physical-economic possibilities (his exercising of production, storage, realization and delivery of goods (or operations , services)) for the trustworthiness confirmation of the counter-agent's economic activity. This level of the internal control's monitoring system foresees the systematic supervision over the state of the following risk's analytical factors:

- 1) the absence of the counter-agent's business aim for his conducting of the economic operation;
- 2) the counter-agent has no production capacities (equipment), place of storage (warehouses), transport means for the transportation of the concrete amount of raw material, finished production, goods, etc;
- 3) the absence of the enough quantity of technical personnel of the corresponding qualification;
- 4) the unconfirmed method of goods movement or operations (services) realization;
- 5) the absence of factual wages' payment and, correspondingly, the restraining of taxes and dues from them;
- 6) the absence of the cost payment of the supplied production, goods, operations, services.

In order to control the mentioned risk factors at this level of safety, the subject of the internal control may use the following methods in his (her) operation: the informational inquiries to the counter-agent, on the documentary usage right's confirmation of the

production capacities and their size; the exercising of the joint inventory of the fixed assets (equipment, shops, warehouses, transport means and others) and reserves (raw material, materials, goods and others), that the counter-agent is planning to use for the production of the finished products (the fulfillment of operations, the presentation of services) with the following sale to the enterprise; the collection and the analysis of evidences or reports (confirmations) of the executers of the economic operations' facts, who work, according to the staff regulations of the enterprise or the contracts of the civil-legal character, and others.

The third level of safety – “the Completeness of the Economic Operation’s Documentary Formation” - is the actions’ totality of the internal control’s subject, directed at the controlling research of the initial documents (the invoice, the waybill, the receipt-transmission statement of the executed operations (or the presented services) and others), by which the facts of the economic operation are formed to provide their presence and the correctness of their formation. Such level of the internal control’s monitoring system includes the supervision over the following analytical factors of risk:

- 1) the absence of the written economic contract with the counter-agent;
- 2) the absence of the initial documents for the commodity’s transportation;
- 3) the absence of documents on the commodity’s transmission, on the receipt-transmission of the executed operations (services);
- 4) the supply (sale) of the finished products, the production of which is not really declared;
- 5) the realization of the commodity, illegally put into the commodity circulation (which was not officially bought from the producer by the counter-agent).

The effective methods in the operation of the internal control’s subject for the presented level of safety, the checking of the initial documents are: the formal checking, the arithmetical checking, the counter checking, the chronological analysis and others.

The presented methods foresee the orientation at the external risk factors of the enterprise economic operation’s unreality, appearing from the side of the counter-agent. Then, as the internal factors of the enterprise are conventionally considered to be controlled and do not threaten any unreality of the economic operation.

It is reasonable to conduct the presented internal control methods of the unreal economic operations’ risk in the following consequence: the 1-st stage – the control of the counter-agent’s activity legality; the 2-nd stage – the trustworthy confirmation control of the economic operation’s fact; the 3-rd stage – the completeness control of the economic operation’s documentary formation.

It is advisable to conduct the periodicity of the monitoring’s exercising regularly with the following interval: the 1-st stage – once in a quarter, the 2-nd and the 3-rd stages – constantly, depending on the essential sum of the economic operation. The leadership of each enterprise individually defines the operation’s essentiality threshold for the purposes of such control. The recommended threshold of the essentiality for the sum of one economic operation is from 30000 hryvnas.

The presented above principles of the internal control’s conducting methods of the unreal economic operations’ risk are the basic ones and they may be improved by the subjects of control in dependence of the specificity needs of the enterprise’s economic interaction with their counter-agents.

Conclusions and Suggestions

The economic operations' safety of every national economy's enterprise needs to create the individual risk monitoring systems of the unreal economic operations on conditions of the negative phenomenon's widening – deviation from taxes payment by conducting the unreal (fictitious) operations. The control of such risk should be exercised at the enterprise by the corresponding subject, who will regulate his (her) actions, according to the presented principles of such control's methods. The operation result of the internal control's subject should become the conclusion on the weak places in the reality's safety criticism of the economic operation between the enterprise and its counter-agent. In order to eliminate the revealed factors of risk, the subject of the internal control should elaborate the recommendations for their neutralization. Such recommendations are presented to the higher leadership for the examination, after which it takes the corresponding decision on their fulfillment. The recommendations of the internal control's subject may be different, namely: to refuse from cooperation with the counter-agent (not conducting of contracts or breaking of the acting agreements); to eliminate the revealed threats (factors of risk) by the counter-agent; to documentarily confirm the legitimacy of the counter-agent's economic activity and others. The complete control task of the presented decision's fulfillment is left for the subject of the internal control. Such approach to the risk of the unreal economic operations will allow the enterprise to create the guaranties of the unproductive losses' absence (additional tax liabilities and fine sanctions) and the safety of the continuous activity in national economy.

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THE PROBLEM OF PUNITIVE JUSTICE AT ALL COSTS

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Abstract. The issue is a comparative stage in the field of broadly understood criminology. Almost every day this problem hits the author and often stirs up, causing a kind of scientific rebellion over the constant violation of human rights through the abuse of criminal procedures and mass information to the public.

Keywords: costs, anakysis, psychological events, punitive justice

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Introduction

The most important is always a man and his family, not a prosecutor or judge who often abuses the law as if he was "God".

I write this word consciously and I want to deal with it in an open and thoughtful way by publishing the text all over the world.

Everyone, from the beginning of history, is asking: Who is a human really?

The problem of punitive justice at all costs

We are looking for a broadly understood answer, we are looking for definitions in philosophers, we search in the Bible or Honor, but we know one thing is that there is a soul and a body! It is impossible to understand a man without these two elements. This is one thing. Detention or arrest of a man is a serious blow to the fundamental value of liberty, both internal and external. Therefore, an important role in the thinking of every prosecutor or judge should play the so-called "punitive justice."

Such a concept and its precise analysis can not be found in any academic textbook or criminal law commentary. This notion in itself is often opposed by ignorant prosecutors or judges who, without clear evidence, strike consciously in the fundamental value of human life which is freedom in moving and thinking. In this article, I want to take a look at behaviors that consciously destroy the lives, health and career of many people. I am referring to a special example from Poland of Tomasz Komenda, who spent 18 years Illegally in prison for serious allegations, ie rape connected with the death of a young girl. This is a classic example of the so-called for the falsified "image of punitive justice". We can say that 1/4 of this man's life was taken illegally. The worst thing is that those who accused him and then convicted him today say that they would make exactly the same decision. This is an unacceptable ignorance

of the state, which stigmatizes in a way that is ill-conceived and primitive at the same time, but, for example, for the media, still the product for sale and increased viewership. It comes to the situation that the prosecutor has unlimited power. My research shows that, on average, 60% of prosecutors in Europe are moderately intelligent, superficial people, washed out of human feelings and deprived of any broad knowledge of criminology. Recalling the research of the eminent Polish criminologist, prof. Andrzej Bałandynowicz, we can say that we are often dealing with moderately intelligent psychopaths with psychopaths, who have clear problems distinguishing the Problem of imprisonment with other Freedom penal measures. Another eminent scholar claimed well that the law is the result of psychological events. The creator of legal psychology, prof. Leon Petrażycki, also honored posthumously by the President of the Republic of Poland on 11 November 2018 with the highest distinction - the Order of the White Eagle. It is easy to prove the ignorance of these officers, taking into account the upper limit of the penalty for a committed offense. International Criminal Law should be clearly defined. What exactly can be deprived of liberty and what is not! Pay more attention to education in freedom according to the famous maxim: "Christ set us free". The inquisitorial process has been a kind of court trial since the 12th century, and since the 13th century it has been developing both in ecclesiastical law and in secular criminal law (*Galuszka, 2016: 46-47*). From the nineteenth century until today, the courts use a mixed-action, inkwizycyjno-complaint procedure: proceedings are initiated "in the case", evidence is collected, and then the complaint procedure begins (*Galuszka, 2016: 47*).

The prosecutor then had to take into account that he would be detained together with the accused, until the case was resolved. And if he does not prove his guilt, he will have to cover the costs of the trial. When transferring this example to the subject of this work, it should be said that no prosecutor or judge for his mistakes in art bears any internal or external complaints like the one who is unlawfully deprived of liberty and has already been included in the relevant statistics of the prosecutor's office and court, because they are they are very often connected vessels. Word! "ailments" for these "psychopaths" is of no great significance. They consciously push the responsibility to the Court, and the one who has no choice and sees any compensation responsibility of the state returns the matter to the prosecutor's office often very sluggish, not repealing any preventive measures, this is a drama.

Many scholars confirm my thesis that these - psychopaths have full fulfillment when they see "breaking a man" and the best way to finish their lives. This was the case with the already mentioned Tomasz Komenda. I saw with my own eyes how one of the prosecutors was counting on such a solution. What it comes from? From bringing the human individual to the goods and statistics, which you can sell, destroy and end in the public opinion for the reward. There is no control over "intelligent psychopaths" because modern man has been completely washed out of his humanistic features. It is also related to the crisis of the humanities and related education for freedom. Kard well said once. Ratzinger, later Holy Father Benedict XVI, that we are dealing with the "deep laughter of Mephistopheles". Civilization of darkness and death - this is the thinking of the prosecutor's office!

Meanwhile, I am saying this enough and I encourage you to discuss and pay special attention to these people. Before any prosecutor and judge, I will not kneel, because he is not "God." The prosecutor is not "God." The second example is the candidate-socialist for the French president Dominic Strass accused of rape at a hotel maid, as a result acquitted. It was enough that he was a candidate for the president of France with great support at the time. He immediately used it for Sarkozy. The prosecutor's office was the tool for removing it, as is the prosecutor's office. The prosecutor's role is to prosecute criminals, perverts, killers, fraudsters

on 100% evidence, and not to break people's lives unjustly. This is a scandal! The prosecutor and the judge require constant Formation as a priest. Therefore, he should earn himself worthily in order to raise both intellectual and spiritual development. Unfortunately, the truth is different and it results from my comparative research among such communities as: judges, lawyers, prosecutors and prisoners and those who have ever been deprived of liberty. Of course, we must be extremely objective, but the research is shocking for such a way of thinking, often extremely sluggish and unjust, given that life is so short. I have not yet encountered a situation in which preventive measures, in addition to pre-trial detention, are counted towards a subsequent penalty or temporarily repealed. I am struck by another example of Roman Polański. Despite the compensation paid, more than a year of house arrest in Switzerland and, therefore, restriction of freedom, pre-trial detention and associated physical and mental illness, because the prosecution must show to the media - how well it pursues, which is a compromise and a fundamental mistake in the construction of decision-making and thought processes at the same time! The pathology is certainly due to the lack of psychological knowledge and the superficial examination of the collected evidence, often without any source documents, and based only on the wrong testimonies of witnesses in the context of the so-called mining detention.

Huge hypocrisy and Intolerance makes this the basis for Faithful Stigmatization. I am pleased to admit that such a harmful attitude was adopted by the Polish Attorney General Zbigniew Ziobro, who certainly wants good, but is not aware of mistakes when it comes to criminal law in his thought process. There are no rules for alleged innocence and a fair trial for him. He often deals with the media, thus leading to irreversible ailments such as suicide, deprived of liberty or the breakdown of families and subsequent damage resulting from health. Out of 1,000 surveyed people from among the groups mentioned, about which I wrote before, nearly 92% say so and are plunged into fear. This is an override. On the other hand, you also have to admit that Ziobrze is making changes to a series of so-called legally inviolable people. That is why I established Legal Clinics almost 10 years ago, whose task is not only to defend such people against the pathology of the prosecutor's office and other, but solid scientific research aimed at drawing quick attention to this problem, which is visible to the naked eye. The cooperation of a lawyer, psychologist, doctor and often also a priest brought the results of research that I have included in this text. The prosecution's making such an unjust segregation is another abuse on the part of global politics and simply killing people and the consciences of subsequent generations. I have the impression that we do not draw conclusions from the history of criminal law and even do not read, for example, Lombroso - the work "On crimes and punishments". This is a dangerous phenomenon of people's dictatorship, often intellectually limited, lacking the right methods learned and the scope of their application. Not many of them have the right methods to test the credibility of a witness who often lies.

In my earlier articles, I wrote that the phenomenon of intolerance towards convicts and related so-called Luther's democracy is the dream of many people who are hurt. I am calling for a greater distance and real study of this problem. Democracy is not only the majority rule, but also often when recognizing minority rights. The issue is serious and no longer requires scientific research, but their use and strong reaction. It's true: "an inquisitor is also a man" but not at any price. Therefore, this text is just an introduction to the topic, the next will be a thorough analysis of specific examples and this related erroneous decision-making process in prosecuting innocent people. In history, two processes were particularly stuck to me, being a perfect example for the so-called "justice punishing at all costs", namely: Jesus of Nazareth

and Paul of Tarsus. Processes devoid of any logic combined with the abuse of power at any price. The first describes the Gospel of Saint. Jana which is an excellent source. Second, apostle Paul, who came to "Cazarea probably at the beginning of 59" (Steinmann, 1961: 199).

Conclusions and suggestions

Józef Flavius writes that one of them threw stones at each other and there were many wounded and dead on both sides. Already then, the law that is the result of psychological events has an unbelievable impact on human life above all, not recognizing any arguments and facts. The apostle's case was still being referred to another prosecutor. He was accused [Tertullus] of profaning the temple, which was a serious crime for the Romans (Steinmann, 1961: 199). Paweł defended himself very much, but he still could not convince the then-average intellectual psychopaths (Steinmann, 1961: 200). Why, because the accusations were only irrelevant to the desire to liquidate a man at any price. In turn, the new prosecutor immediately after arriving at Caesarea, at the end of 59 years had to become familiar with the accusations. The apostle, of course, stood before the prosecutor with his accusers. He stood on the charge of profaning the temple and violating Jewish law (Steinmann, 1961: 200).

And Festus was the one who wanted to please his subordinates the most. Paweł, realizing that he has only one option, as a Roman citizen, ie an appeal to the Tribunal. He wrote: "I stand in front of Caesar's court, and I must be judged by him, you know very well that I have not committed any crime against Jews, if I committed a crime or anything that deserves to die, I would not refuse to die, but their accusations are worthless, no one has the right to give them to me, I appeal to Caesar!" (Dz.Ap 25, 10-12) In sum. I am writing this text at the University of Saint Jerome Doula in Cameroon and I think that I will start my discussion with a kind of discussion and lead to profound changes in thinking about punitive justice.

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E-COMMERCE: GLOBAL AND DOMESTIC DEVELOPMENT TRENDS**Maryna Zavyalova**

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Abstract. The paper studies and analyzes the current state and trends in the development of e-Commerce at the global and regional levels. reveals the nuances of domestic e-Commerce and formed its forecast characteristics for the coming period. In the course of the research the theoretical foundations of the category of "e-Commerce" and related concepts of online trading are revealed. the trends of the worldwide development of e-Commerce and the nuances of its implementation in Ukraine are investigated.

Based on the critical analysis of statistical data and other information sources. the main prospects for the development of e-Commerce in Ukraine are formed.

Keywords: electronic trading, Internet, e-Commerce, on-line purchases, online store, market place, Internet platform.

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Problem statement

Significant development of information technologies and their integration into the business environment have formed the prerequisites for the development of e-Commerce. which is now increasingly gaining the momentum. Traditional trade. which historically positioned itself as a dynamic type of economic activity and was formed during the transition from the natural method of production to the commodity method. is rapidly transforming in modern conditions. Taking into account the specifics of trade as a sphere of the national economy. new methods. forms and models of trade. items. means and tools of trade are being tested. At the same time. trade itself does not cease to perform its main socio-economic function (distribution and redistribution of consumer goods and its bringing to the end consumer is ensured; receiving of profit from such business processes; satisfaction of the needs of the end consumer. etc.). Today. the active development of Internet technologies leads to the use of the global network as a platform for trade. as a result of which the subject of trade acquires the forms of modern retail chains and shops with a form of self-service. the object of trade expands to virtual goods and electronic content. and the methods (means) of payment for goods become electronic money. The Internet is becoming a platform for trading.

E-commerce is now becoming one of the most promising areas of business both at the global level and at the national level. provoking countries to closer trade contacts. integration of modern technologies and stimulating the development of other sectors of the economy.

Analysis of recent research and publications

Many works of foreign and domestic scientists and economists are devoted to the study of e-commerce and e-business. revealing its theoretical and practical aspects. Thus. Ye. O. Alekseenko. A. Bezuhla. S. Drazhnitsya. O.V. Orlik. O. Shaleva and others highlight the basic principles of e-commerce. types of Internet businesses. offer methodological sets to assess the effectiveness of shopping in the online space and the feasibility of such e-business. At the same time. the constant development of information technologies. their active usage by consumers and the increase in electronic requests of the latter provoke the emergence of new aspects of the development of online trade. Thus. the results of theoretical scientific developments in the field of e-commerce require additional research and updating in the realities of the domestic market.

The aim of the work is to study the theoretical and practical aspects of e-Commerce in the global and local level. to identify the main trends and prospects of its development.

To achieve the above goal. the following tasks have been developed:

- to study the essence of e-commerce and determine its place in trade;
- to analyze the features of the global and domestic e-commerce market through the indicators of trade. the ratings of countries to determine the place of Ukraine in the global and European online trading market;
- to form the main trends of the development of e-commerce and the possibility of their application in the practice of domestic online retail.

The economic nature of e-Commerce is defined differently by each researcher. ranging from restricting trade exclusively to the Internet platform to conducting business transactions using the Internet. Based on the results of such diverse developments. it is possible to form a generalized definition of e-Commerce as the interaction of the commercial nature of the subjects of different markets (consumer. industrial. domestic. international) using the means of modern information systems. their networks and technologies. The concept of e-Commerce today includes such related phenomena as: electronic exchange of information. electronic movement of capital. e-trading. e-money. e-marketing. e-banking. e-insurance services.

There is no doubt that e-commerce has developed so widely because of its consumer preferences over traditional forms of trade. namely:

- the price of goods and services on the Internet platform is lower due to their lower cost (no labor costs. rent. storage costs. etc);
- round-the-clock customer support via the Internet resource. available access to a wide selection of goods "without borders". it is possible to compare products and prices in different stores;
- there is a function of the viewing and publication of product or seller reviews. to study specifications of the goods and services from practical experience of purchasing in video-reviews;
- no boundaries for the goods market;
- it is possible to use different methods of promotion of goods. means of Internet marketing. social marketing. customize a trade offer. to use direct sales. etc.

Thus, e-commerce has significant advantages in the form of additional opportunities for both the consumer and the seller, which allows to make a purchase faster and more convenient.

A few years ago, online sales of goods was mainly the prerogative of large online stores of home appliances and electronics due to the purchasing tactics of the choice of goods, based on the inspection and consultation in off-line stores, but today the advantages of buying and selling goods through online stores are understood by both sellers and consumers. Most modern sellers are trying to equalize prices, that, as a result, leads to the statement of today's boom in the segment of online stores for different products (from clothing to food) (Drazhnitsya, 2018).

The volume of the e-commerce market in the world is growing rapidly, having a significant impact on the dynamics of retail trade and the level of competition between market participants (Fig. 1).

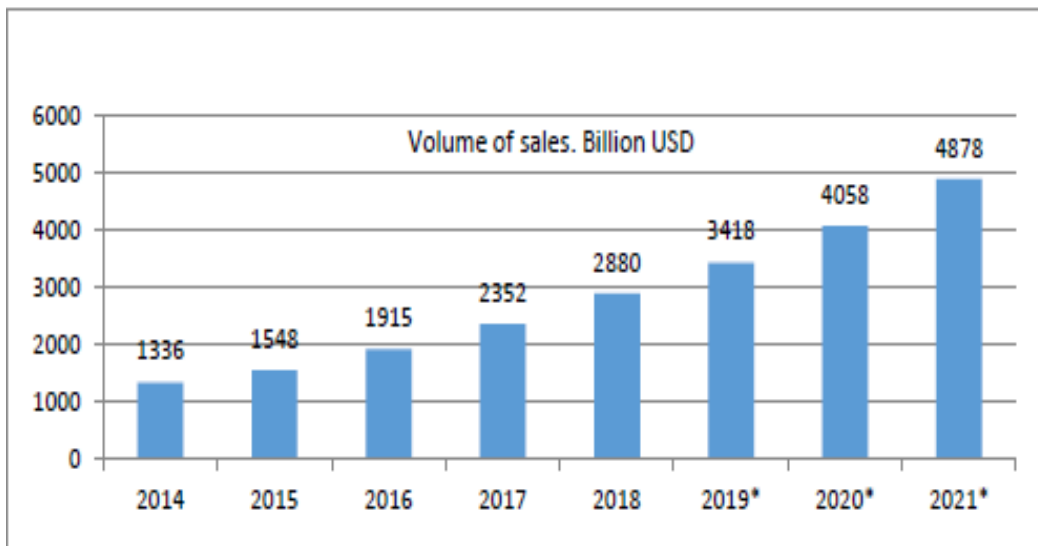


Fig. 1. Dynamics of volume of Online trade in the world in 2014 -2018 and forecast for the 2019-2021) (in billion U.S. dollars)

Systematized by the authors, based on the sources (Retail e-commerce sales worldwide from 2014 to 2021)

As can be seen from figure 1, by the end of 2021, the projected volume of online trade will be 4878 billion. US Dollars. Further development of the market depends on a number of factors: GDP per capita, the level of penetration of banking services, Internet and smartphones, development of logistics infrastructure, reliability of delivery, as well as business conditions.

Analysis of the development of e-commerce in Ukraine in comparison with European countries according to the analytical report European-e-commerce 2018 indicates the presence of significant problems. Thus, the level of Internet penetration in Ukraine in 2018 is the lowest among the five worst countries and amounted to 66%, along with countries such as Albania (66.8%), Croatia (69.3%), Bosnia and Herzegovina (69.6%), Bulgaria (70.4%), while

the European average is 83.1%. The highest rate in countries such as Sweden (99.7%), Switzerland(98.3%), Iceland (98%), Denmark (97%), Netherlands(97%). The level of penetration of Bank cards according to the press release of the NBU in 2018 in Ukraine – at 63%, while in Hungary - 75%, Belarus - 81%, Denmark – 100%. According to experts, the Ukrainian law requires improvement with the purpose of unshadowing of handling cash, reduction of the volume of smuggling and consumer protection. This will be facilitated by the implementation of Directive 2006/112/EC, which provides the harmonization of concept of the invoice, procedure of its issuance, usage and storage of electronic invoices in Ukraine with EU standards. The best indicators relate to the growth rate of e-commerce in Ukraine. The growth rates of the e-commerce market in Ukraine and Europe in 2017 are shown in figure 2.

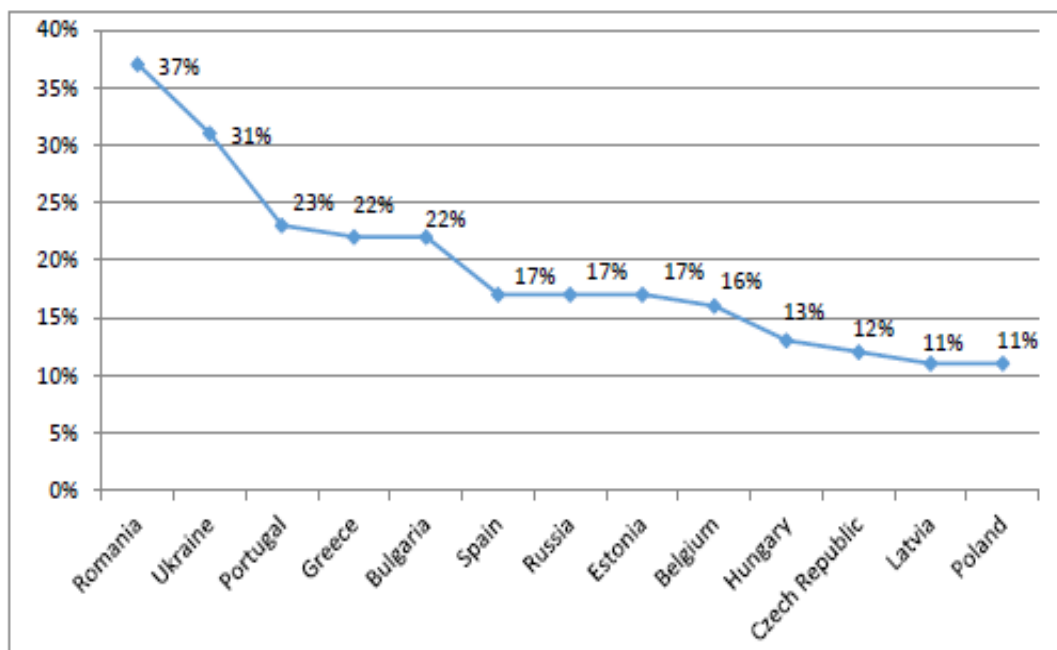


Fig. 2. Growth rate of e-commerce in Europe in 2017

Systematized by the authors based on the sources (*European Ecommerce Report 2018 Edition*)

The world e-commerce leaders in terms of e-commerce turnover are as follows: China (\$766.5 billion), United States of America (\$595.1 billion), UK (\$174.2 billion), Japan (\$114.4 billion), France (71.9 billion dollars), Germany (\$66.2 billion), South Korea (\$64.8 billion), Canada (\$35.7 billion), India (\$25.5 billion), Russia (\$22.8 billion) and other countries, including Ukraine with a turnover of \$ 5.65 billion. Thus, the world ranking of countries by the volume of e-commerce turnover has the following form (Fig.3).

According to figure 2, the rest of the world, except for Top-10 countries, accounts for 14.8 % of global e-commerce turnover, including Ukraine.

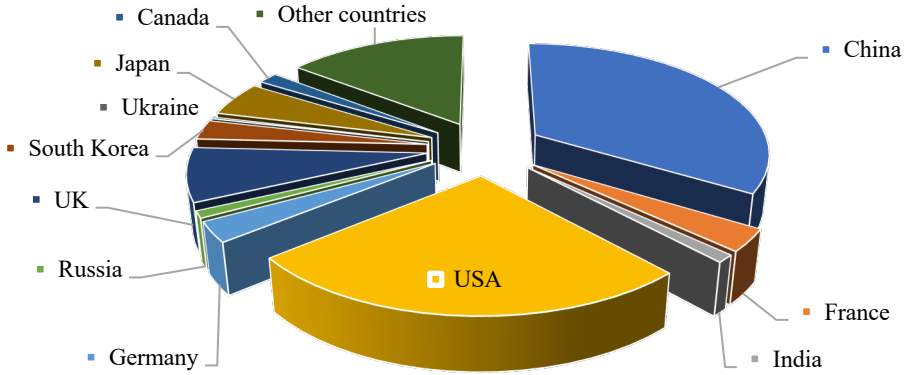


Fig. 3. Share of e-commerce turnover of Ukraine and the world, %
Systematized by the authors based on sources (Drazhnitsya, 2018)

Although the volume of the market of online trade in Ukraine can not yet be called significant (3.5% of the total retail trade in 2017. and 4.5% in 2018), the growth rate is significant, as evidenced by the data shown in figure 4.

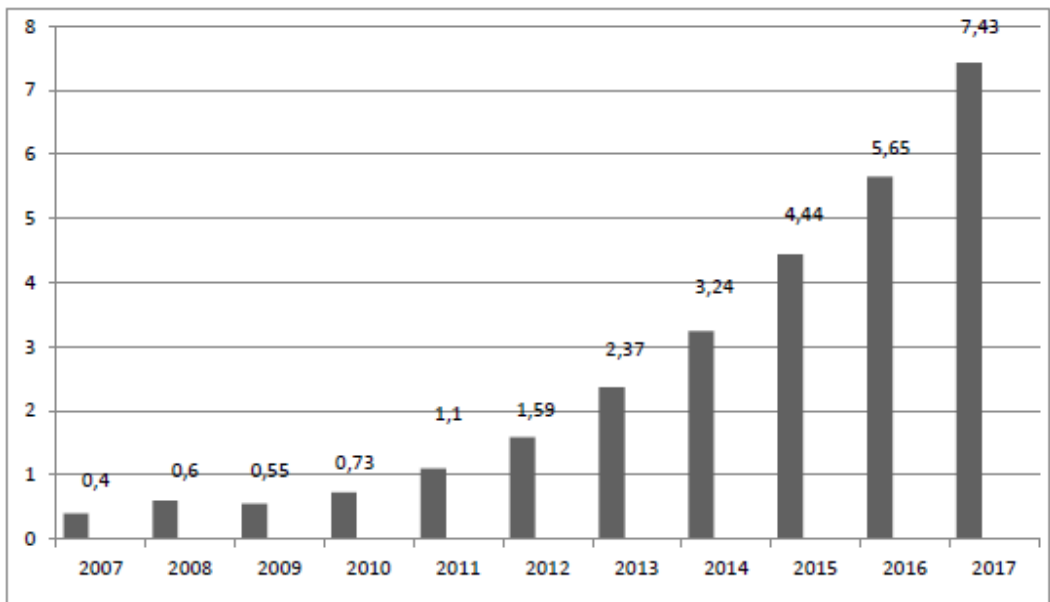


Fig. 4. Dynamics of volumes of online trade in Ukraine for the period 2007-2017, billion dollars

Systematized by the authors based on sources (Malovychko, 2015; European Ecommerce Report 2018 Edition; Official website of the State statistics service of Ukraine)

Citizens of Ukraine increasingly trust Internet sales. because they offer lower prices. which allows customers to save money; offer a fairly wide range of products; contribute to saving time of consumers; offer prompt delivery of goods at a low price. During 10 years since 2001. the number of users of the world wide web in Ukraine has increased more than 50 times. The explosive growth of the audience is expected to cause a sharp increase in demand and supply: if in 2005 in the Ukrainian segment of the network was registered about 500 trading platforms. by 2008 they amounted to about 3 thousands. and today there are more than 20 thousands.

Dynamics of indicators of development of e-Commerce in Ukraine are shown in table 3.

Table 3

Development of e-commerce in Ukraine

Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
The volume of online trade. billion USD	0.6	0.55	0.73	1.1	1.59	2.37	3.24	4.44	5.65	7.43
Growth.%	50	-8	34	50	45	49	37	37	27	31
Penetration of e-commerce. %	0.7	1.0	1.1	1.3	1.6	2.3	2.9	3.8	4.5	5.2

Systematized by the authors based on sources (Malovychko, 2015; European Ecommerce Report 2018 Edition; Official website of the State statistics service of Ukraine)

The table shows that the growth rate of penetration of e-commerce in the economy of Ukraine is also growing. Thus. if at the beginning of the market development in 2005. the volume of online trading in Ukraine amounted to 0.1 billion US Dollars. in 2017. this figure reached \$ 7.43 billion. which accounted for more than 74-x growth in the market volume.

The trust of domestic consumers of Internet goods is growing more and more. and preference is given to offers with lower prices. which allows customers to save money; offers a fairly wide range of products; contribute to saving time of consumers; offer prompt delivery of goods at a low price. Thus. according to the results of the study by TNS company. the number of Internet users in Ukraine at the end of 2018 was more than 22 million people. and the share of users making purchases in online stores reached 31% (or 6.9 million people).

Majority of consumers use their home PCs. laptops and mobile phones when making online purchases (Fig. 5). while analysts record an increase in the number of orders from mobile devices by 2.2 times. On average. in the market. purchases from mobile devices already generate about 30% of all sales and this figure continues to grow.

According to the Global digital-2019 report. the total population of Ukraine in January 2019 decreased by 0.5 % or 213 thousand people. compared to the data as of January 2018. The number of prepaid mobile users decreased by 2.2% or 1 million over the same period. the number of Internet users increased by 60 % or 15 million. The number of active users of social networks increased by 31% or 4 million people. The frequency of Internet usage: daily - 72%. at least once a week - 21% once a month - 4% less than once a month - 2%.



Fig. 5. Distribution of on-line purchases by domestic consumers by digital devices in 2017, %

Systematized by the authors based on the sources

17 million users are active users of social networks or 39% of the total population. the number of active users of social networks. who use mobile devices in January 2019 amounted to 13 million or 30% of the total population of Ukraine. Comparative characteristics of the advertising audience of social networks in Ukraine is as follows: the total audience of advertising (monthly active users) in brackets shows the dynamics of growth in 2019 compared to 2018): Facebook - 13 million (+8.3%). Instagram - 10 million (+5.3%). Twitter - 575 thousand (+2.7%). registered users LinkedIn - 2.5 million (+8.7%). Such positive dynamics in population mobilization creates opportunities to expand the e-commerce market in Ukraine in the near future.

Now the most popular form of interaction of economic entities in the implementation of any commercial activity in Ukraine is B2C. that is. Business to the Consumer. an element of retail trade. Specialized websites for purchase/sales of goods. where economic entities carry out their commercial activities are the main tool of this form.

Online trade by demonstrating positive dynamics causes corresponding structural changes in domestic trade networks. increased competition and the need to intensify the struggle for the consumer. We are talking about the active implementation of marketplaces.

According to the portal of the Association of Retailers of Ukraine. the largest group of sites in the segment of online trading – are the projects of the company EVO – Prom.ua. Bigl.ua. Crafta.ua. Shafa.ua. All of the above sites are marketplaces. In 2017 Ukrainians have spent on the Prom.ua. Bigl.ua. Crafta.ua. Shafa.ua marketplaces (EVO company projects) 14.2 billion UAH. This is 68% more than in the same period of 2016. The number of orders increased by 61%. During 2018 on Evo marketplaces (Prom.ua, Bigl.ua, Crafta.ua, Shafa.ua) Ukrainians purchased goods for 9.5 billion UAH. plus, another 10.5 billion UAH – on the websites of companies on Prom.ua and the number of orders increased by 47%.

The average check in 2017 was 962 UAH. then in 2018 it was (on EVO sites) 1190 UAH.

In addition, marketplaces are growing faster than online stores. The total traffic of marketplaces in 2016 amounted to 194 million. and in 2017 – to 207 million. In comparison with 2016. traffic increased by 12.7 million. Thus. new buyers are increasingly opting for trading platforms. Every fifth product was purchased from the site of a company certified by Prom.ua.

While retailers in most cases earn on sales. marketplace make their business bet on the promotion of goods and services. thus, likely becoming competitors not to the online stores. but for social networks and search engines.

The three most popular foreign online stores among Ukrainians include Amazon, AliExpress and eBay.

The main categories of products, which domestic consumers are buying online today include clothes – 81%; electronics – 73%; beauty and health products – 58%; goods for home and garden – 49%; gifts, books – 47%; goods for sports and leisure – 43%; auto-moto products – 32%; children goods – 31%; goods for the provision of services – 30%; food – 19%. Three groups of products – electronics, household appliances and clothing – remain the undisputed leaders in terms of sales among domestic buyers. According to one of the leaders of Ukrainian retail – LeBoutique – the volume of e-commerce in the fashion segment is 200-250 million US dollars. Relatively new segments, which are on demand online, include handmade goods and the secondary market of goods.

Online shopping is the most popular among residents of large cities (44.6% of Internet buyers in Ukraine). Experts attribute this trend to different levels of Internet penetration and the intensity of technical equipment modernization.

In the field of online trade in Ukraine there is a clear gender inequality. Thus, 80% of customers of online stores are men. And most of them belong to the age of 26-50 years. They work mainly in the field of trade (16%), information technology (10%), construction (7%), transport and communications (5%). Their positions are: business owners and heads of departments – 19%. Directors and IT-engineers – 7%. Deputy managers – 5%. That is, the total monthly income of more than half of the participants of online shopping exceeds the average in Ukraine. At the same time, according to the results of the research conducted by the company Prom.ua, the database of 1.26 million customers, who made at least one purchase during the last year was analyzed. Of them, 52.4% were women and 47.6% were men.

The key components of the Internet are communication, information, commerce, communion and comfort. At the same time people purchasing online exactly those products that do not violate the main rule of e-commerce: if the purchase of a group of goods online simplifies the life of the client, the customers will switch to online.

According to the results of the Google report, the behavior of domestic online users in relation to purchases made in online stores is determined by the following:

- Ukrainians shop online more often than residents of other Eastern European countries, such as Poland and Romania;
- more than 90% of all purchases are made from a computer and the share of mobile devices in this indicator is less than 10%;
- 38% of Ukrainian online users at least once a year make a purchase in some foreign online store, while 45% never bought anything from abroad, naming language barrier as the main deterrent;
- 76% of users compare alternative products with each other, and 70% read tips on choosing a particular product;
- the main factors that repel (may repel) from making purchases online, for Ukrainian consumers are the dubious reputation of the online seller (77%) the inability to see and test the goods before making a purchase / order (73%) uncertainty about the decency and reliability of the online seller (72%) uncertainty that the paid goods will be delivered in proper (intact) condition (48%) low level of service (45%).

Thus, the Ukrainian market is at the stage of formation and has a huge potential for growth. This is especially possible due to the parallel qualitative development of the market of Internet banking, postal and courier services in Ukraine. Thus, in addition to the electronic

market of goods sales. the popularity of Internet banking services and payment transactions via the Internet is growing. Today "PrivatBank", "Raiffeisen Bank Aval" and others are the leaders in the implementation of the latest methods of transactions. These services provide all payments via the Internet. and created applications for mobile phones that would make certain banking operations as easier as possible.

Also, the advantages of e-commerce are used also by delivery services. without which the purchase of electronic products is practically impossible. Modern delivery services which comprise 78% of all methods of delivery. differ in the speed of transfer and processing of payments and goods. And of course. in their work they also use computer technology and the latest software. According to the Ukrainian Association of direct marketing. the most powerful and most popular commercial (non-governmental) delivery service from online stores is "Nova Poshta". In 2017. Nova Poshta strengthened its position in e-commerce: the share of deliveries to Nova Poshta customers from the online trading segment within Ukraine is growing by about a third from year to year. In 2017. the trend continued and the company delivered about 33 million shipments for e-commerce or 30% more than in 2016.

Analysis of foreign experience in the development of e-Commerce allows us to identify the main trends. tools and technologies that will lead to a boom in e-Commerce in the coming years. which can be successfully implemented in Ukraine in order to improve the competitiveness of domestic e-commerce.

1. Lead scoring. This is the functionality of the digital system. through which you can understand the degree of involvement of the lead and willingness to buy. The system awards points for certain actions of users. and the more points it gets. the hotter is the lead. For example. lead visited a certain page of the site - 1 point. opened the letter - 2 points. clicked on the link in the letter - 4 points. went to the site again - 10 points. There can be any conditions for scoring. The introduction of such a powerful marketing tool makes it possible to get a lead estimation and work selectively with the right customers. An example of the simplest scoring. which is used today. are the black-lists of buyers. who do not regularly redeem their orders. and which allows to add more consumers. The development of such a tool is due to the fact that companies lose a lot of money for the return of non-purchased orders. For example. US mail processes 1 million returns daily. bearing losses for businesses.

There are many powerful scoring services in the West. among the domestic systems that declare the presence of lead scoring in its Arsenal are AmoCRM. Getresponse. TimeDigital CRM. However. it is important for the service that provides lead scoring to provide different conditions (triggers) for scoring. In most CRM-systems - it's just scoring for the transition to another stage of the operation or for view the page. This scoring will not help much. In the near future. Facebook developers are working to create scoring tool for further optimization of the advertising campaign for the desired leads. All this shows importance and development of Lead scoring in the near future.

2. Personalization of advertising. Most online stores make personalized offers for customers - offer them to see products that may be of interest for them. It uses browser history. location. and pre-order information. With help of personalized recommendations. profits of the shops may increase on average by 10-15%. But using only Yandex Metrics or Google Analytics is no longer effective. As a minimum. you need to take into account the data from the SMM-Department and sales Department. In international practice. there are systems created on the basis of Big Data and artificial intelligence. which firstly. create the most clear portrait of the client. and secondly analyze the optimal time. which allows the

advertiser to show ads to the most targeted customers at the right time. Consequently, the development of such systems will find application in indigenous practice.

3. Transactionality of social networking platforms and instant messengers. (the user is able to make a purchase without leaving the platform). Thus, the percentage of Chinese buyers that make purchases in social networks on a regular basis is 55% and there it is considered as norm. An example of one of the most popular messengers that has become a successful platform for online trading in China is WeChat. Following this direction, developers of Instagram have added a new feature "Purchases in Instagram", where it is possible to mark products with active links in their publications. Subscribers can see the price and description of the goods by clicking on the mark, as well as be able to click on the link and place an order. Given the growing popularity of such platforms as Facebook and Instagram, in Ukraine, it is important for domestic online merchants to activate these platforms, because today it is more convenient form of customers feedback.

4. Implementation of virtual assistant - Chat bot. Chat bot can be simple (with a standard set of phrases) and can be developed with artificial intelligence. Such a virtual assistant optimizes the time of the buyer to choose the goods and answer his questions, which facilitates the work of the seller, because it can call the client and say the specified text; send SMS or letter to the email address; send a message to the social network or messenger from which the client wrote. This virtual assistant not only understands live speech, but is also able to learn. Thanks to the tools of artificial intelligence, it is possible to analyze the purchases and preferences of the user, as well as to offer him a product from the sphere of his interests and make cross-sells or upsells.

5. Expanded marketplaces for big sellers (18 of the world's largest online marketplaces sell goods worth more than \$ 1 trillion a year. Analysts predict that by 2020, marketplaces will account for 40% of the global online retail market) etc.

According to Forrester Research, in 2016-2017, more than 50% of online purchases are distributed through the marketplaces (first of all through Amazon, Alibaba, JD.com and eBay). The forecast for 2022 is 67%. Thus, marketplaces continue to gain popularity, their influence is growing every year.

6. Installment payments purchase. The peculiarity is that this is not a typical loan, but installments without overpayments, which are provided by a special service. At the same time, the business owner that connects online installment payment of this service makes payments for the difference in the conversion of the site. The higher the difference, the greater the reward. Thus, three parties' benefit: the client receives the goods without overpayments, the entrepreneur increases sales without increasing advertising costs, and has the opportunity to increase conversion, the service earns on increase in conversion and provides installment payments. Such a business model, already practiced in the US, is attractive and will have development, as customers are willing to make purchases with installment payments rather than immediate ones.

7. Use of augmented and virtual reality technologies. Additional reality helps to understand how the product will look in real conditions, which helps to make a decision about the purchase (for example, online fitting in 3D). The technology is successfully used today and will continue to develop.

8. Optimization for mobile devices. Improving conversions from mobile traffic. Mobilization of e-business is gaining momentum. According to the forecasts of the research company eMarketer, mobile will account for about 73% of the global e-Commerce market by 2021. Despite the growth of mobile traffic, e-commerce in the domestic space is not

developing so successfully. so an important trend in this direction will be the increase in the conversion of mobile traffic. This will be possible due to:

- firstly. the elimination of restrictions between sites and mobile applications (in practice. technology of Progressive Web Apps is already used as a hybrid of the last two);

-secondly. by optimizing mobile advertising systems. which are based on artificial intelligence and Analytics.

Therefore. given the fact that today 54% of all customers make requests using smartphones. and this number is only increasing. in order not to lose such a number of potential customers. in 2019 the site should be optimized for mobile devices as a must.

9. Logistics optimization. The development of this trend is due to the need to improve customer service and ensure their loyalty. as the number of Internet users is growing not so fast. In the West. the model of delivery in the format of not "to the nearest branch". but to the "nearest store to the home" becomes more and more popular. The introduction of this trend is possible in the domestic market. such points of delivery of orders can be popular retail chains near home. as a mean to optimize logistics costs and convenience for the consumer.

10. Omnichannel. In order to become one of the leaders and dissociate from competitors. you need to pay attention to multichannel marketing. The basic principle is to combine different channels to communicate with customers and make sales. The company should work systematically to use all available channels to attract buyers. as each of them can make a contribution to make a profit. Multichannel is also important in communication with users. so companies should use messengers. social networks. email. chat bots and push notifications to show the importance of customer feedback. For foreign online stores it is normal. but in Ukraine the multi-channel marketing is a novelty. Example of work with a different channels for the acquisition of buyers have an online store Rozetka.ua.

11. Voice search and image search. According to Comscore. by 2020 more than 50% of all search queries will be voice-based. In accordance with updates of search engines there's a need to change the sites as well with a focus on voice search. Such companies as Google. Yandex. Pinterest are working to improve photo-search. Visual search is already implemented on some e-commerce platforms.

12. Elimination of free returns option (the growth of firms ' costs due to frequent returns of goods forces sellers to use deterrent measures from returns: from a complex policy of refusal and return of goods to bonuses for consumers from receiving other goods);

13. Refocusing on ethical e-Commerce (transparency and sustainability of materials and prices that are particularly relevant for Eco-friendly consumers);

Based on the aforementioned. we can conclude that for the successful competition of domestic enterprises in the e-commerce market there's a need to optimize business processes. This is due to the fact that the number of Internet users in Ukraine is growing. but not so fast. the main e-commerce market has formed. thus. for the further increase of profits. e-commerce market participants should focus on optimizing business processes. reduction of costs. This can be done by implementing aforementioned by automating processes within the company. that will simplify marketing and sales. reduce staff costs. improve the quality of customer feedback and accordingly, the conversion rate.

Conclusion

Thus. we see that the global e-commerce market is gaining significant momentum. Domestic e-Commerce is at the beginning of Internet evolution and demonstrates high growth

rates. The barriers for entry into the Internet market are relatively low, and the benefits of e-commerce for users and entrepreneurs are tangible. However, at the present stage, the domestic e-commerce market has many unresolved issues, which hinders its development. The Outlook for e-commerce in Ukrainian online stores is generally positive, as more consumers will become online buyers and more stores will switch to e-commerce. The total potential volume of domestic e-commerce by the end of 2019 will be close to 14 billion US Dollars. Analysis of the e-Commerce market in Ukraine reveals the main trends and prospects of its development: improvement of logistics infrastructure; development of e-marketing; active use of mobile technologies; growth of online sales both in the world and in Ukraine; active use of mobile devices for online shopping; even deeper penetration of the Internet in Ukraine.

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FAMILY SUPPORT ENTITIES IN THE MIGRATION SITUATION OF ITS MEMBERS

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Abstract. Nowadays, we are dealing with a large wave of emigration from Poland. Two factors contributed to this: the high unemployment rate in Poland at the turn of the last centuries and the ease of movement of individuals and groups after Poland's accession to the European Union. The overlap of these two factors meant that many Poles, not infrequently fathers or mothers of families, made decisions about finding a job outside the borders of their homeland. Although economic emigration contributes to improving the conditions of the family's existence, which is undoubtedly its positive effect, it nevertheless has many negative consequences: social, environmental, psychological... If emigration disturbs the system of family functioning, there is a need for broadly understood support of the emigrants' families in order to minimize its negative effects. It is primarily about support that maintains social relations that take a specific form in the family and without which the family becomes dysfunctional. The most important entities that provide such support are: the closest family, state institutions, religious organizations.

Keywords: Emigration, consequences of emigration for the family, supporters of the emigrants' family, family policy.

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Introduction

Migration, understood as spatial mobility, has always been an important dimension of the functioning of societies. For the nomadic peoples, it was even a condition for their survival. Over time, and especially when national states were established, migration began to take the form of emigration, understood as leaving the country of origin. This form of migration often saved the lives of individuals and even whole communities. The Polish community can be a good example here. It is quite possible to attempt a thesis that Poles more often emigrated than other nations. It was related to both economic and political factors. The first contributed to emigration in search of better living conditions; the second resulted from

political reasons. The latter were the result of persecution of the Russian invader after the fall of the November 1830 and January 1863 Uprisings. Similarly, Poles living in exile after the Second World War, could not return to the country for fear of persecution of the communist regime. Also recently, we are dealing with a large wave of emigration from Poland. Two factors contributed to this: the high unemployment rate in Poland at the turn of the last centuries and the ease of movement of individuals and groups after Poland's accession to the European Union. The overlap of these two factors meant that many Poles, not infrequently fathers or mothers of families, made the decision about looking for a job outside the borders of their homeland. Among the many negative consequences of emigration is the fact that emigration causes the separation of family members, which quite often results in the weakening of family ties. Because of emigration, a new category of incomplete families emerges - families with the temporary absence of one or sometimes even both parents. As noted by S. Urbańska, families of the emigrants are legally complete families, because temporary separation does not deprive them of the family status, however, due to the absence of one or both parents, these families function as incomplete families (*Urbańska, 2008:76*). Every migration, especially emigration, has a significant impact on the functioning of the family. Although economic emigration contributes to improving the conditions of the family's existence, which is undoubtedly its positive effect, it nevertheless has many negative consequences: social, environmental, psychological... (*Bejma, 2016:117-120*).

If emigration disturbs the system of family functioning, there is a need for broadly understood support of the emigrants' families in order to minimize its negative effects. It is primarily about support that maintains social ties in the family, without which the family becomes dysfunctional. Such a family accumulates negative traits, inconsistent with the principles of social life... As a consequence, "the dysfunctional families can not fulfill their parental functions well enough, can not meet the duties and tasks of their children and other family members and successfully pass through crisis stages" (*Bejma, 2017:56*). In this case, there is a great need to act for the integrity of the family. This support should be provided by all entities offering help to the family. In the literature on the subject, three types of such entities can be distinguished: members of a close and extended family, in particular grandparents; institutional - a state implementing social (family) policy and at the local level (territorial self-government, courts, County Family Assistance Center, family counseling centers, religious denominations, school), parishes and mass media. The type of support depends on the type of entity that provides it. Any form of support is helpful. However, it should be adequate to the existing problem and difficulties. This stipulation should be emphasized regardless of the fact that the problems of emigrants are always similar. Their minimization by support entities is constantly needed.

Family entity: grandparents, close and extended family

The first subject of support of the émigré family is always the nearest and extended family: grandparents, aunts, uncles, cousins. This kind of support seems to be exceptionally functional and needed in a situation of emigration of the parent, and especially of both parents. In this situation, it can even be said that the child is temporarily orphaned. And the task that supporters face is to uphold family ties. In the case of emigration of one of the spouses, it is about preventing the breakdown of marriage and the family; it is maintaining bonds that grow on the basis of multiple form of relationships between family members, and which are the guarantee of family group integrity. A well-established family bond effectively

protects the family from disintegration. Consequently, the deeper and stronger the bond that connects the spouses, despite their temporary separation, the less harmful to the family are the effects of émigré absence. This applies to both short and long term separations. The situation is similar when it comes to parenting relationships; grandparents appear as the first support entity. When one parent emigrates, the other takes care of children, often assisted by grandparents; in the case of emigration of both parents, usually the grandparents take care of the child, and more rarely other family members such as relatives or adult siblings. If necessary, grandparents are also most frequently the legal guardians of the child (*Tarka, 2014:174*). In addition, grandparents in interpersonal relations, especially in parental relations and grandparents-grandchildren relations, remain a valuable link in the chain of fulfillment of needs in an émigré family. Five main needs are mentioned in the literature:

- the need for security, when satisfied, gives inner peace, the feeling that not only someone is next to the child, but the child can count on a close person. Then the tensions and fears that may accompany the child are avoided;
- the need for a sense of value that is responsible for the child's self-esteem and recognition from the environment;
- the need to belong - is satisfied by closeness and belonging to grandma or grandfather;
- the need for love expressing the presence of a loved one, who loves and experiences mutual love;
- the need for being understood, to be in touch with others, to share successes with friends, to be helped in difficulties... (*Młyński, Szewczyk, 2012:145*).

The first subject of support in the émigré family, are grandparents. The participation of grandparents in caring for grandchildren is of less importance when fathers leave and definitely more important when their mothers leave. In addition, their role increases in a situation of prolonged time of emigration (from 6 to 12 months); in such a situation they become relatively more important guardians than the father remaining in the country. This means that the structure of care in an émigré family is conditioned by the temporary length of migration (short-term / long-term) (*Walczak, 2014:23*).

Grandparents are usually an important element of the family structure. They participate in the functioning of the family, share difficult moments with their grandchildren, but also experience joy with them, they are an example and an authority for grandchildren. It is also worth adding that the roles of grandparents, although they belong to the so-called roles ascribed, i.e. not achieved, are very important (*Namysłowska, 2000:23*). Grandparents and grandchildren connect blood ties. As a consequence, grandchildren usually have good contacts with their grandparents, and moreover, emigrating parents also have more confidence in their parents than in other people even those belonging to the family. In the case of parents' emigration, the role of grandparents takes on a new dimension - they become the first, after parents, guardians of children (grandchildren). Usually, grandparents, with a mature philosophy of life, have a lot to offer their grandchildren, especially when they take on guardianship roles.

Undoubtedly, the support offered to an émigré family does not apply only to its children. Sometimes grandparents and extended family support the whole family in various situations caused by emigration. Common conversations, meetings, encouragement... are among best known. The ability to talk and support in difficult situations is an extremely important element of support. The goal is always the same - to sustain live family ties (*Gizicka, Gorbaniu, Szyszka, 2010:32; Sęk, Cieślak, 2004:49*).

Institutional entities of the state as part of the social and family policy: Social Welfare Center, District Family Assistance Center, Courts, School

The state, as one of the family support entities in emigration separation, may offer its assistance at local or higher organizational level. These forms of assistance are implemented as part of social policy. It follows from the very definition of social policy that it is the activity of the state and other social entities responsible for shaping the living and working conditions in order to meet the most important needs (individual and social) of citizens (*Rajkiewicz, 1979:27*). The analysis of the phenomenon of emigration after 2004 in Poland leads to the conclusion, that there were two main reasons for emigration: the lack of work on the homeland market and the desire to improve the family's economic condition. The shaping of the policy that determines the proper functioning of the family should have a reference to specific conditions. This means that in order for this support to be real and effective it must be based on the diagnosis of emigrant needs and families remaining in the country. Moreover, the assessment of these needs should be a reference point for family policy. It is about the most effective way of supporting the needy by the state. Most often, this applies to large families. The 500+ program currently being implemented, extended with the Home+, and Senior+ programs, may also constitute the bases of family policy with regard to émigré families. Currently, due to the growing return of emigrants to the country, continuing this form of assistance seems to be exceptionally functional.

A review of literature addressing the issue of emigration leads to at least a few areas of the social system that require the support of families in the situation of emigration separation. The first form of support for émigré families is a government initiative on the coordination of social security, understood as a system of benefits, which citizens use in various circumstances and conditions defined by law (*Podoski, Turnowiecki, 2003:125*). Activities concern the insurance of persons and their families. This type of benefit also includes those who have been employed within the European Union. As noted by Z. Kawczyńska-Butrym and M. Kruk, the following main services are foreseen in the directory of services: assistance in case of illness, maternity, invalidity; support for members of the deceased host family, for accidents at work or illness, and benefits for the unemployed (*Kawczyńska-Butrym, Kruk, 2015:213*). This type of social security is very important and gives the people the sense of security and stability as the full citizens of Europe.

Because of emigration, the scale of orphanage caused by this factor also increased. This situation forced the undertaking of some activities, formalized by the state administration. Among other things, the Ministry of National Education initiated a number of activities to support the family in separation. One of them is a telephone helpline for children and youth in cooperation with the Ministry of National Education and the Nobody's Children Foundation; information brochures are issued in cooperation with the Board of Education, actions are undertaken to protect children's legal rights and information campaigns on how to deal with children whose parents went to work abroad (*Pawelec, 2015:97*). An appeal to the local government, which is the closest to the inhabitant, seems also to be very important. In Poland, since 1999, there is a three-level self-government structure: voivodeship, county and commune. At the level of the commune, closest to the individual's living environment, it is easiest to notice the difficulties and needs of the families. The first thing to be done is making

a diagnosis. One of the institutions supporting families in separation at the municipal level are social assistance centers with professionally prepared and competent social workers, support centers and crisis intervention centers. "The great advantage of communal social assistance centers is their direct contact with those in need. Their spatial closeness allows us to see the needy, assess their situation and meet the needs as much as possible" (*Majkowski, 2015:54*). Recently, the role of assisting an émigré family by a family assistant has been increasingly emphasized. Although its role is usually associated with inefficient families, poorly educated and disturbed in social functioning, it also offers assistance provided to émigré families in terms of satisfying their needs. According to research conducted by D. Gizicka, J. Gorbaniuk and M. Szyszka, about 40% of emigrant families have benefited from this kind of assistance. The help offered to them is connected mostly with childcare. As part of these services are: community day rooms, provided classes in day centers, family counseling, family therapies. Elements of the latter include psychological, pedagogical and social help (*Gizicka, Gorbaniuk, Szyszka, 2010:143*).

At this point, the role of the commune should also be emphasized as a support entity for seniors and people with disabilities. In a family that is in separation, this benefit is extremely helpful. Help itself is offered in various centers and forms ranging from activities for physical activity and social activity of seniors within the framework of Third Age Universities, Senior Clubs, Senior Citizens' Councils and volunteering. J. Isański refers to this form of activity when he writes: "increasingly frequent elements of the landscape of Polish cities are senior clubs, open-air gyms and a rich offer of activities for the elderly" (*Isański, 2016:143*). These forms of support for family members offered by the local government at the local and over local level when the children remain abroad, are extremely important and needed (*Chabior, Fabiś, Wawrzyniak, 2014:77-80*).

As part of the support provided to families in separation, the role of County Family Support Centers should also be emphasized. The émigré family can expect support in the form of family counseling, family therapy provided by a psychologist, as well as assistance in the form of daytime attendance, care or upbringing. These activities are undertaken in accordance with the acts, which include, among others, the County Self-Government Act, which clearly defines public tasks of a supra-municipal nature. These include social assistance, family support and foster care as well as pro-family policy. Of course, this help is provided depending on the demand for it. The task of County Family Support Centers is not only to protect individuals and families from high-risk groups, but also to provide care and education to children who are deprived of their parents' care. This is the purpose of adoption and care centers, care and educational centers and centers providing information on the rights of citizens.

Courts are another institution located in the area of support for the émigré family. Assistance from the court is a deep interference in the family situation and the relationships occurring in it. Most often, it involves the establishment of curatorial care for children at risk of demoralization and the request for denial or limitation of parental rights when there is no possibility of contact with biological parents. This instance decides to place the child in a foster family or in care and educational centers (*Gizicka, Gorbaniuk, Szyszka, 2010:143*). Usually, parents who travel abroad for a long period of time, should establish a legal guardian. In practice, the grandparents usually play the role of the supervisor. It is very important to regulate the legal protection of a child, especially when a parent, who only has parental responsibility, leaves. This issue is regulated by Article 149 of the Guardianship and Educational Code. Establishing a legal guardian is especially important when it is necessary to

make important resolutions like health, healing, behavioral or educational decisions (*Ślusarczyk, 2014:80-81*).

Among entities supporting the migrant family, it is worth paying attention to school being the first place where a parent, pupil and teacher meet. This is valid particularly, in the dimension regarding the fulfillment of formal duties, related, for example, to legal protection. In any case, the educator and teachers first recognize the difficult situation of the child, they also first diagnose the causes of these state of affairs and signal them to the right people. At school, these people are: director, psychologist, educator and catechist, and priest. A few years ago, Educational Curatories in Poland carried out research in the field of identifying parents' migration issues. The research showed that in Malopolska Voivodeship, in almost 1,800 cases, no parents, who emigrated to work abroad, reported such a fact and no guardian was provided for remaining their children.

Research carried out by the aforementioned authors (B. Walczak, D. Gizicka, J. Gorbaniuk, and M. Szyszka) prove that the school is a direct place to meet with children of immigrants (*Walczak, 2014:13*). The role of the teacher and educator is invaluable. It involves not only noticing problems related to the development of children, social functioning, disorders, but also providing help in the field of studies, assistance of specialists (e.g. speech therapist), arranging extra-curricular activities, trips, free time, running interest groups (*Gizicka, Gorbaniuk, Szyszka, 2010:142*). In the situation of disturbing phenomena threatening the proper functioning of the child or behavior indicating addiction, the teacher will quickly notice that something bad is happening, and his reaction can effectively affect the fate of the child and family (*Łoskot, 2011:39*).

Considering the above, it is not surprising that in the catalog of tasks of the school, in which children of migrants are in the area of parental risk, emphasizes: supporting the student in his development, supporting the educational role of the remaining parent, adapting the content, methods and organization of teaching to his psychological abilities, ensuring pedagogical and psychological help, shaping attitudes and protection against threats (*Pawelec, 2015:100*). At this point, it should be noted that every environment, institution, and even specific people have the possibility to support the family in various ways. Combining their efforts brings positive results not only for socially disadvantaged and poorly educated families, but also results in the building of environmental ties (*Ciczkowska-Giedziun, 2017:84*).

Denominational entities: church, parishes, specialist clinics

Among the entities that have influence on the upbringing of the child are also religious associations. Their role stems from the fact that the parents, deciding on the religious upbringing of the child, assign the part of their rights to the church. Since the Catholic religion is the most widespread in Poland, it is obvious that the Catholic Church has an important role to play in this regard. This role is not limited to instruction, but - as a charitable institution - to support families in various situations. Emigration is one of them. The role of the Church in this area is directed both at those family members who emigrate as well as those who remain in the country and function in incomplete families.

For those who leave, church institutions provide support that aims to serve the emigrant in obtaining the necessary information: useful addresses, telephones for Catholic missions and pastoral centers, information about the hours of Holy Masses, meetings of countrymen (*Scheffer, 2010:18-44*). A component of such support is the organized Scientific

Family Counseling Courses in Polish Catholic Missions in the West of Europe. Their aim is to prepare young people for marriage, responsible parenthood and to provide other forms of assistance in the field of family counseling. A good example of such support are courses organized for Polish emigrants. So far, they have taken place in several European countries where there are large groups of Poles: in Germany, Great Britain, Scotland, Spain and France. The author of the program is W. Szewczyk (*Szewczyk, 2011*). Another form of help is to provide prayer books, folders, and even more practical help like getting a credit card or other facilities.

In relation to those who remain in the country, the parishes, taking into account the difficulties associated with bringing up children and caring for children and elderly people, undertake compensatory activities in this area, such as organizing summer holiday camps, oases, winter camps, sports camps... These forms of support are of a socio-economic nature. The church institution established for this purpose is the parish Caritas. In addition, the Church meets the needs of families who are socially disadvantaged.

At this point, the counseling centers and other support centers run by the Catholic Church should also be mentioned. Such, for example, are Specialist Clinic "Ark" and Telephone Trust in Tarnów. These centers perform their mission in five cities (Tarnów, Bochnia, Dębica, Mielec and Nowy Sącz) of the Diocese of Tarnow. Support is provided especially for marriages in crisis, children with educational problems, addicts, seeking legal and spiritual support. Among them more than half of the beneficiaries are married couples and families in emigration separation. In 2011-2015, almost 19,000 of them benefited from specialist help and marital therapy (*Młyński, Szewczyk, Zięba, 2017:51*). (See figure below!)

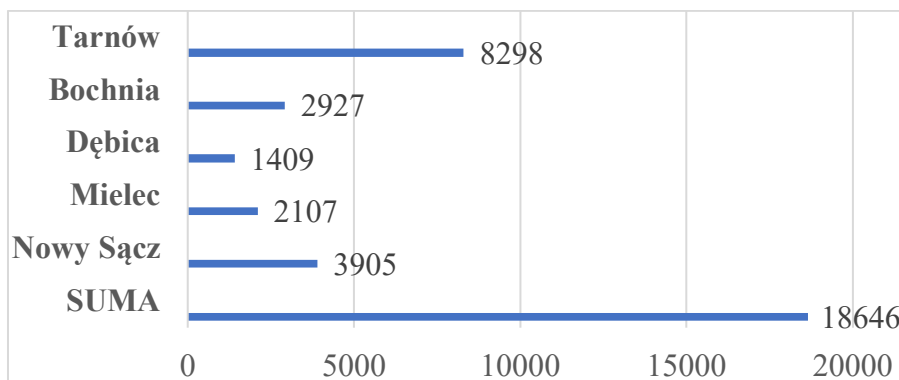


Fig. 1. Number of advice provided at the Specialist „Arka” Center in Tarnów in 2011-2015

Source: own study

Mass media

An indirect form of supporting families in a migration separation is to appeal to mass media. Their goal should be to provide reliable and true information, taking into account the opportunities, but also dangers associated with working and living abroad. Although their specific activities are difficult to assess, some of their forms are important for emigrants. It is about access to services such as: Polish press, telephone numbers, Internet and social networking sites, which make possible to be in touch with family and children. Currently,

global access to Internet networks eliminates the limitation of the communication process, enabling quick contact between countries and even continents. There are no borders or even geographical distances in this area. In the era of information technology development, the traditional written word ceased to play a leading role in the communication process (*Dekker, Engbersen, 2014:403*). In studies conducted by D. Heidrich, A. Łukaszewicz and J. Nakonieczna-Bartoszewicz, it was stated that "migrants use various mobile applications. Those of them with whom interviews were conducted indicated Facebook as the application used in the migration situation most willingly" (*Heidrich, Łukaszewicz, Nakonieczna-Bartoszewicz, 2016:10*). This type of communication serves not only for the transmission of information, but also for the exchange of photos in the wider circle of family and relatives. In keeping up the marital and family ties in the situation of emigration, Skype becomes exceptionally useful, making it possible to see people and talking almost face-to-face. A mother or a father in emigration, using the indicated communicator, has the chance to talk to children in the evenings, read stories, do their homework, talk about school, church and even pray with them. The report carried out 10 years after Poland's accession to the European Union structures shows that over half of the students surveyed from transnational families (54%) used video calls via Skype (*Walczak, 2014:57*).

Conclusion

This article is an attempt to analyze the support entities of the émigré family. This analysis leads to the conclusion that currently there are multiple forms of support for émigré families provided in various forms and at different levels. Undoubtedly, the need to support these families is very high, taking into account their internal diversity, as well as the diversity of situations in which they are living. Family, state, local self-government, School, Church are the basic support and care entities in the situation of marital and parental risk caused by emigration.

In practice, it is difficult to say unequivocally that support provided to families affected by emigration is adequate and sufficient. There is a need for in-depth research on how far the separation caused by emigration becomes the cause of disintegration of families and how effective is the assistance of various entities carried to these families. What is beyond discussion is the need to support families affected by separation due to emigration.

The world of émigré families is unequivocal. On the one hand, emigration leads to the economic stability of the family, on the other weakens the family ties and even causes the break-up of the family. That is why the role of family support entities seems to be invaluable. However, regardless of whether the family experiences the problem of separation or functioning "at home", one element of family life seems to be of special importance - being together. There is no doubt that "spending free time in family and with family, regardless of the form it takes, is of great importance for mental health and even physical integrity" (*Majkowski, 2006:394*), and affects her sense of happiness and quality life.

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HUMANITIES

METHODS OF BIBLICAL PHRASE STUDIES

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Abstract. The article deals with new methods of biblical phrase studies. The following methods have been under consideration: attributive, phraseological identification, phraseological application, dictionary definitions, componental and contextological analyses. A conclusion is made that using different methods is necessary as it promotes a comprehensive and profound elucidation and re-interpretation of every biblical phrase.

Keywords: biblical phrase, method, expression, re-interpretation, stability, reproduction, topological approach.

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Introduction

A biblical phraseological unit is reproduced in speech as a compound language sign that first came into being in the Bible, having an independent meaning and consisting of two or more words, among which at least one has a re-interpreted meaning, that indicates a certain notion of some subject, phenomenon or quality. Biblical phrases emerged in the texts as well as plot bases and are of great interest for the researchers of many languages (*Ivanov, etc., 2019*).

In A. Koonin's publications (*1970; 1986; 1996*) phraseological bibleisms are treated from the point of view of their origin, ways of forming, peculiarities of usage in modern English texts. The scholar pointed out, that the extensive group of borrowed phraseological units of biblical origin occupy special position owing to the specificity of their source. He raised another important problem of studying biblical phrases – the correlation of these units with their prototypes and considered basic divergencies among them as well as their types.

As a rule, these divergencies are caused by their re-interpretation of literal meaning of a phrase prototype, the change of emotional bibleism colouring and formal modifications of a figurative biblical expression. It often happens when a variant of a biblical prototype becomes a phrase. The above-mentioned and other A. Koonin's publications are of a scholarly interest

as they represent basic problems of studying phraseological bibleisms together with basic directions of this layer research.

Some problems of studying English biblical phrases have also been dealt with in L. Myahkova's articles (*Myahkova, 1987; 1988*). In her first article the author treated biblical units from the standpoint of general semantic phenomena, characterizing these phrases both fixed in a dictionary and in the process of their text function. Among other things L. Myahkova points out an important peculiarity of the units under study – all of them generalize life experience of man, express vital wisdom, a profound philosophical sense, that is their meaning is closely connected with a human being.

In the second article the researcher sets a task to consider nominative peculiarities of phraseological bibleisms serving for the designation of man. All these units are characterized by an anthropological sign of selective orientation. The signs, underlying nominations in phraseological units under study, are treated from the point of view of prototype continuity.

Solodukho's research is basically concentrated on the treatment of the so-called "phraseological internationalisms" constituting an extensive enough group of phraseology, available in any language. Phraseological internationalisms comprise phrases underlain by artistic images, taken from Greek and Roman mythology, history, literature as well as phrases of biblical origin. The problem of studying internationalization of language phrase-stock ranks high in his investigation (*Solodukho, 1989*).

The most interesting thing in his research is that the author singles out two basic groups, based on the character of their relations going back to the Bible and classical literature. The first group includes formations, the primary shapes of which are established in texts, that are created on the linguistic basis. Their sources turn out to be corresponding prototypes (metaphoric or non-metaphoric word-groups), e.g. *daily bread*.

The second group represents phrases, formed on the basis of text contents but having no direct correspondences (prototypes) in it. The sources of phrases of this group are text fragments, having image motivations, e.g. *Judas kiss*.

A similar thought is available in O. Dmitriyeva's article, dealing with the research of an extensive layer of nominative units, adopted by phraseological corpus at the beginning of the New English Period and constituting its "nuclear part" (*Dmitriyeva, 1990*). The author refers to such units as phrases, having the Bible as its source. The analysis, carried out by her, demonstrate that some of the units, are formed on the basis of biblical plot, e.g., *see a mote in one's brother's eye*, others are connected with it only by motivation, but not its concrete material form. Thus, one can come to a conclusion, that the majority of publications concerning the problem of phraseological bibleisms, have been written according to the channel of the general theory of loan-words and focusing on phrase formation.

There are a number of works, that for the most part deal with the problems of semantic peculiarities of phraseological units of biblical origin as well as other significant issues of biblical phrase studies.

O. Akhmanova and L. Polubichenko brought forward the problem of "philological topology" concentrated on studying the notion of philological invariant, which is historically and sociolinguistically conditioned. In the opinion of the authors, at different epochs and in various social groups of speakers sense distinctive factors quite often turn out to be diverse sides of seemingly similar phenomena (*Akhmanova, Polubichenko, 1979*).

The topological approach to the bibleism studies presupposes the comparison of different contexts used, in which they are represented both in the form of original citations from the Bible, and phrases having lost their primary sense. The causes are studied according

to which a certain thought, expressed by anyone proved so essential for a given language community, that a great number of its members repeatedly appealed to it by means of reiterating.

The correlation of gnomic citations and idioms proper must also be taken into account. The expressions of gnomic character represent the phenomenon as timeless, as the absolute truth and have an aphoristic mnemonically convenient form. Such expressions are usually clear even without drawing a certain sense structure.

The analysis of functioning traditional and occasional phraseological bibleisms testifies to the variety and systematicity of using expressive properties inherent in them as language and speech facts. Thus, one more problem of studying phraseological units of biblical origin is their treatment as general language expressive properties of these units (figurativeness, expressiveness, emotionality, assessment) as well as the peculiarities of their speech usage for achieving greater text impression.

Methods

The most significant methods of studying biblical phraseological units are the following.

Attributive methods, including such procedures as: a) solid corpus of phraseological units with the usage label of "bible" from phraseological dictionaries, reference book, the dictionaries of proverbs and quotations; b) atethesis – "diverting" from the original (the Bible) of those phraseological bibleisms which had been assigned to it by mistake; c) giving a more precise definition of form of a given phraseological unit, caused by the availability of heterogeneous from the point of view of modern phraseology material in English dictionaries; d) singling out variants of phraseological bibleisms from dictionary articles.

By means of singling out solid corpora from dictionaries these phraseological units are usually selected which have such usage labels as "bible" or "etymologically biblical". However, usage labels, indicating the attribution of phraseological units are not always precise, therefore the procedure of atethesis is applied. For revealing the most precise date of fixating a certain phrase a re-verification is carried out, while using A New Oxford Dictionary on Historical Principles.

In a number of cases dictionaries ungroundedly include the expressions, having been created by some author on the basis of a biblical text or plot but not being phraseological bibleisms in reality. E.g., a phrase *to out-Herod Herod – to be very cruel, to exceed everyone in cruelty*. This expression was created by Shakespeare. It contains allusion on a well-known plot of King Herod who ordered to kill all the babies in Judaea. Though there is no this expression in the biblical texts, it has the Scripture as its source. In this and similar expressions the biblical situation turns out to be re-interpreted, and biblical images serve the basis for creating new phraseological units of a non-biblical disposition.

Phraseological stability is treated in the broad sense of the word as a complex property covering all the aspects of phrasal structure. It is the notion of phrasal stability that is the basis of V. Koonin's phraseological theory, who demonstrated that stability is a complex phenomenon, including five micro-levels summarizing a common index of phrasal stability: stability of use, stability on the structural and semantic level, being expressed in a structural and semantic model of phrase formation; stability of fully or partially re-interpreted meaning; stability of lexical stock admitting substitution of phrase components only within phrase variability; morphological stability manifested in the availability of components with a zero

and incomplete paradigm and syntactical stability, connected with a set word order in a phrase, the changes of which are possible only within variability, structural synonymy and occasional transformations. Thus, phraseological stability is the scope of invariance, inherent in different aspects of phraseological units, conditioning their reproduction in a ready-made form (Koonin, 1986: 43).

In narrow comprehension phrase stability is manifested in their reproduction of a ready-made form.

Reproduction is a regular recurrence of language units of different degree of complexity, that is heterogeneous formations of versatile quality. Phrase reproduction in speech is the form of revealing their stability in language, as stability and conditioned re-interpretation by it cover all the aspects of phrase structure. According to Koonin's figurative definition phrases are stable not because they are reproduced as ready-made, but vice versa, they are reproduced as ready-made because they are stable formations (Koonin, 1986: 84). The categories of stability and reproduction correlate functionally as potentiality and realization. Stability, that is keeping in one's memory a steady unity of form and contents presupposes its reproduction.

Separate taking shape is inherent in phrases of different structural types. It is established by means of contextual analysis of grammatical changes in phrase components. A criteria of variant taking shape is singled out enabling the sphere of action extension of the existing criteria. Separate taking shape of phrases may be established in the context by means of occasional indices (such as putting in and different structural changes).

Unreserved disposition of phrase structure is manifested in the fact that as one indivisible whole with all its stock it usually combines with notional words (word) in speech being a phrase encirclement.

One more important principle of phraseological identification proposed by A. Koonin, is the principle of studying phrases in synchronical and diachronical aspects. An all-round study of the state of language phraseological stock is impossible without combination of these approaches. Any study of phrase meaning compels us to appeal to the sources of these units within certain limits. It is the complication of phrase meaning that causes the clash of diachronic and synchronic aspects.

The diachronic aspect of research presupposes the study of origin and evolution of phrases in a language and in this sense it is directed at revealing original processes of phrase creation. The essence of diachronic research is: from a separate to the general, on the level of individual units to common regularities, typology of phrase creation. The task of the diachronic analysis is revealing the prototype of a phrase – the basis, the type of the material that gave birth to the beginnings of phrases under consideration as well as the definition of the processes that led to the phrase emergence. The use of diachronic analysis enables uncovering inner-system links and forces, influencing the character of phrase creation.

The synchronic plane of research is carried out on the basis of some totality of phraseological units, firmly established in a language as a result of centuries-old practice of a language community, and being the elements of lexico-phraseological language system. Among these units there is a certain structural, semantic or figurative correlation (Stebelkova, 1979). Here one must take into account not only inner regularities of the system, but also its outside relations with reality.

The criterion of full and partial re-interpretation of phrase meaning. The re-interpretation of meaning may be treated as a dominating property of semantic phrase structure. A direct meaning always precedes the emergence of idiomatic sense in a phrase.

Re-interpretation emerges as an occasional semantic transformation of the prototype of the future phrase, as it is still in its potential stage and is not a language unit. When a potential phrase, acquiring elements of stability, lacking for it, becomes virtual (that is, a language unit), semantic transformation loses its occasional character and turns into re-interpretation, representing itself as a usual phenomenon. Thus sense formation of phrases proceeds in the process of re-interpretating previous word meaning, when there is full and partial sense transformation of phrase prototype (or a phraseosemantic variant), based on the semantic shift.

Method of phraseological application or method of superimposition of a phraseological unit on an equivalent variable word-group, if it is available. This method enables defining the nature of the integrated meaning of the phrase under study and the degree of semantic fusion of its components.

The superimposition of a phrase on the variable word-group of the same name reveals the structure of the sense of the syntactic pattern that the phraseological meaning is based on. Categorical lexico-grammatical word meanings and syntactic correlations among them may help in finding out which parts of phraseological meanings correlate with the corresponding word components. Then, by means of confrontation, the correlation of elements of phraseological meanings may be established, associated with certain word components, with the system of meanings of corresponding words of free usage. The interaction of phrase components with the words of free usage, expressed in their substitution with words, the meanings of which are drawn together with lexical meanings of these components in some way is possible only because they are intuitively perceived as words with a certain sense structure.

As a rule, systemic lexical component meanings of phrases as a whole cannot be applied to a concrete situation. This is explained by frequent substitution of components with words, having a common semantic sign with them and capable of designating the elements of the given situation directly.

At superimposing a phrase on a variable word-group both a positive and negative effects are possible. Positive in case of the availability of variable word-group and negative effects are possible. Positive in case of the availability of variable word-group and negative in case of its absence.

Method of application succeeds to ascertain that the components of applied (superimposed) phrase components are not comparable with words of free usage in semantic, derivational, morphological and syntactic relation, the same way as a phrase is not equivalent to a word. This method comes in touch with a componental analysis and with the method of dictionary definitions as at co-measuring of phrase-component with a word one will have to rest upon a word-stock of unfolded definition of the corresponding phrase.

Method of dictionary definitions proceeds from the assumption that dictionary definitions are a reliable source of information about the meaning both of an individual word and a phraseological unit. At analyzing semantic structure of phraseological bibleisms, it is recommended to take into account lexicographical data, using dictionary definitions from explanatory and phraseological dictionaries as informants. Out of three aspects of plane content of a phrase, denotative and significative ones are singled out according to dictionary definitions, while the connotative item of meaning is either not given in a dictionary or in a few cases is rendered with the following usage labels: jocularly, bookish, lofty, stable, ironical, etc., e.g.,

tell it not in Gath – used jocularly in the sense “do not make it public” (*LDELIC*, 1992).

A definition is neutral both in relation to a speaker and to a hearer, e.g., *a fly in the ointment* – a little flaw that reduces or destroys the value or usefulness of the whole (Ichikawa, 1969).

The confrontation of the figurative phrase and its non-figurative definition demonstrates that the definition of a phrase does not comprise language figures, it does not cause emotional and expressive perception, while the usage of a figurative phrase is aimed at the expression of a corresponding emotional reaction.

The usage of not only one but also several dictionaries will enable avoiding well-known drawbacks in the explanation of meanings by lexicographic sources.

Method of componental analysis is the analysis by means of semes (differential signs, components). The usage of this method is realized on the basis of definitional analysis for showing the most general and typical regularities of forming phraseological meaning. The merit of componental (seme) analysis is in the fact, that it gives the possibility of singling out the whole scope of meanings of a language unit, the reflection by the semantic structure of a phrase, the movement from concrete to abstract as well as trace the systematicity in revealing signs, forming the meaning.

The structure of phrase meaning consists of three types of semes: archsemes (general semes of gender meaning), differential (basic) semes of aspectual meaning and potential (additional) semes, reflecting side characteristics of the designated object. The following basic types of semes are singled out:

1. With respect to the language system **generally accepted** and **occasional semes** are singled out. The first ones are members of phrase meaning and occasional are realized only in context, supported by the meaning of a phraseological unit. In other words, occasional semes predetermine occasional information of the whole phrase, realized in the act of communication.

2. According to distinctive force **integral** and **differential** semes are singled out. Integral semes render the information, which is general for the group of phraseological units or phraseosemantic variants and differential semes which perform distinctive functions within the same groups. In a phrase *to build one's house upon the sand and build one's house upon a rock* the integral seme is "the creation of something", and differential semes are "the lack of a strong basis" and "the availability of a strong basis".

3. From the point of view of singling out a constant sign and a non-obligatory sign **nuclear** and **peripheral semes** are singled out. Nuclear semes comprise, e.g., the seme "intention" in a phrase *the massacre (or slaughter) of the innocents*. Peripheral ones comprise hardly probable semes that are members of the denotative aspect of meaning, e.g. "knowledge about something" in the phrase like *the blind leading to blind*.

4. According to the character of singling out in the meaning **explicit** and **implicit semes** are distinguished. Explicit semes refer to the information that is immediately represented in meaning. They may be literal and figurative. Thus, in a phrase *a quiverful of children* a figurative explicit seme "a great number" may be singled out, and in *rule with a rod of iron* – "cruelty, despotism". Implicit semes are those components of meaning, that are available in the plane of contents but lack in the plane of expression. They render the scope of implicit information in the structure of meaning.

5. According to the contents **positive** and **negative** semes are singled out. Positive semes reflect the sign, available in the denotatum and negative – lacking in it, e.g., in a phrase *"the apple of smb's eye"* – "anything or person one cherishes" (Ichikawa, 1969) a positive seme "something dear" may be singled out and in a phrase *a thorn in the flesh* from the

definition "a source of annoyance, irritation, affliction, grief, etc. a persistent one (*Ichikawa, 1969*) a negative seme may be traced.

6. **Prototypical** (very typical) semes may be singled out only in phrases with a living inward form, e.g. *all flesh in grass* prototypical semes non-motivated phrases could come into being. Singling out prototypical semes is connected with associations emerging between the meaning of a phrase and the meaning of a prototype.

7. The semantic structure of a phrase may also have **grammatical semes**, e.g. in *David and Jonathan* – "inseparable friends" the semes denoting pair objects are available, and in a phrase *thirty pieces of silver* – "the value of treachery" the seme, denoting the plurality of objects is available.

Method of componental analysis is especially effective in considering the process of re-interpretation of changeable word-groups and may also be applied in the analysis of synonyms with the aim of singling out common semes in their meanings.

Method of contextological analysis proceeds from the assumption that phrases obtain semantic clarity only in context, when it becomes the expression of a speaker's position in a concrete situation of speech communication. The task of this method is studying the relation and connection of meaning of a set phrase with an indicating minimum that is a word or word-group, rendering a necessary semantic information. The application of this method enables studying the relations among words with independent and bound meanings within the framework of phraseological configuration.

Phraseological bibleisms are language units with a vividly expressed pragmatic orientation. They become an effective means for achieving pragmatic aims by the author of the expression. Here an important role is played by the context, giving grounds for a more complete revelation of phrase meaning. Therefore one of the issues of biblical phrase studies in texts is the problem of representing peculiarities of contextual use of these units, their usual and occasional application.

Conclusion

On the basis of the above-mentioned we draw the following conclusion. Biblical phrases are stable, reproduced in speech word combination or a sentence with a full or partial re-interpreted meaning, having emerged on the foundation of a biblical prototype or plot. The Bible may be considered as a universal source of phrase creation because it unites a great number of sources in itself, such as oral folk-lore, traditional dicta and aphorisms, fiction. The specificity of the biblical source in the plane of phrase creation is in the fact, that it is a canonical source, text in the invariable form, that is, the Bible is an integral text.

As phrase creation is a department of learning natural processes of emerging and development of phraseological units in a language, one may speak about unification of diachronic and synchronic aspects of studies. The task of diachronic phrase creation analysis is the revelation of the basis – the type of the material on which phraseological units under consideration come into being, the definition of the processes that gave birth to the biblical phrases.

The analysis of functioning usual and occasional biblical phrases testifies to the variety and simultaneously systematicity of expressive properties inherent in biblical phrases as language and speech facts. Thus, one more problem of biblical phrase studies is consideration of both common language expressive properties of these units (figurativeness, expressiveness,

emotionality, evaluation) and the peculiarities of their speech use for achieving greater text expressiveness.

Such language phenomena as evaluation, metaphorization and others may be represented from the cognitive point of view. A cognitive approach is important not only because of the fact that it broadly and comprehensively covers language phenomena. It also promotes the penetration in the essence of these phenomena and gives the possibility of "opening them from inside" taking account of a human factor in language as it is man who is the basis of the biblical world model.

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LINGUISTIC AND CULTURAL SEMANTIC PECULIARITIES OF METROLOGICAL PHRASEOLOGICAL UNITS WITH COMPONENTS-NAMES OF VOLUME, CAPACITY AND WEIGHT OF FRIABLE BODIES AND LIQUIDS IN ENGLISH, GERMAN, POLISH AND UKRAINIAN LANGUAGES

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Abstract. The article is devoted to the description of linguistic and cultural characteristics of semantics of metrological phraseological units (MPU) with components-names of volume, capacity and weight of friable bodies and fluids *sieve / sifter, bushel, pound, pot* on the example of English, German, Polish and Ukrainian languages.

Keywords: linguistics, semantics, metronome, volume, weight, friable bodies.

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Introduction

Measures of volume, capacity and weight arose with the development of money relations due to the need for exchange of agricultural products, the need for measuring their volume, capacity and weight. In these measures there was a great variety, in the reference literature there are more than 40 names of metrological units to indicate the volume, capacity and weight used to measure bulk bodies and liquids. However, according to our data, only six names: bag, barrel, sieve / sieve, cortex, pound, and dzban are marked by phraseologically generating activity.

The usage of English, German, Polish and Ukrainian metrological phraseology with names of volume, capacity and weight of friable bodies and liquids is due to the peculiarities of national and cultural semantics; indicates the fact that native speakers reflect and perceive the image of the world according to their national culture. In the studied metrological phraseology of the four languages there are specific spiritual and material values, traditions, customs and national culture.

Basic material

MPU with the names of the volume and capacity of bulk products and corn *Engl. sack / bag, Germ. Sack, Pol. worek and Ukr. мішок* and MPU with the name of volume and capacity of corn and fluids *Engl. barrel, Germ. Faß / Fass, Pol. beczka and Ukr. бочка* has already been the subject of our study (Bobkov, 2008), we'll dwell on the description of MPU with components-specific names of volume, capacity and weight of friable bodies and fluids of *Engl. sieve / sifter, Germ. Sieb, Pol. rzeszoto / przetak, Ukr. пеуемо / цумо; Engl. Bushel, Pol. Korzec, Ukr. коpecь; Engl. pound, Germ. Pfund, Pol. funt, Ukr. фунт; Engl. pot, Germ. Krug, Pol. funt, Ukr. дзбан.*

The factual material for the convenience of the description is divided into four groups: MPU with names of the volume and capacity of bulk bodies *Engl. sieve / sifter, Germ. Sieb, Pol. rzeszoto / przetak, Ukr. пеуемо / цумо;* MPU with a name *Engl. bushel, Pol. korzec,*

Ukr. *корець* in English, Polish and Ukrainian languages; MPU with metronome-weight unit *Engl. pound, Germ. Pfund, Pol. funt, Ukr. фунт*; MPU with the name *Engl. pot, Germ. Krug, Pol. dzban, Ukr. дзбан*.

MPU with the metrological names of the volume and capacity of bulk bodies *Engl. sieve / sifter, Germ. Sieb, Pol. rzeszoto / przetak, Ukr. пеуемо / сумо* make up about 40% of the material in our study. In the national phraseology of four languages the component-name of *Engl. sieve / sifter, Germ. Sieb, Pol. rzeszoto / przetak, Ukr. пеуемо / сумо* has survived, that is entitled to refer to the household items, a kind of a sieve made of woven bark, wire, sheet or a perforated leather and is used for sifting and cleaning of grain (*Kopaliński, 1997*).

In the four chosen languages, the national phraseology with the name of *Engl. sieve / sifter, Germ. Sieb, Pol. rzeszoto / przetak, Ukr. пеуемо / сумо* has retained a rethinking, figurative meaning and playful-ironic connotation of figurative representation of the meaning of “capacity that you will never fill with water”: These are MPU *Engl. to carry water in / into a sieve / barrel (Wilkinson, 1993); Germ. Wasser in ein Sieb schöpfen (Komlev, 2000); Pol. (darmo) wodę rzeszotem / korcem mierzyć; Ukr. (даремно) воду пеуемом мiряти*, which have got a fixed meaning “to perform work that does not make sense; it's a waste of time” with an ironic-humorous semantic shade of “ungrateful work; work that does not bring results; it is useless to make a great effort”. Such components as *Pol. darmo; Ukr. даремно* express the given opinion.

In this semantic model the national and cultural metrological names-realities of the former way of life were used in each language: *Engl. sieve, barrel, Germ. Sieb, Pol. rzeszoto, korzec*. The *Ukr. пеуемом воду мiряти – втрачати час* is distinguished by the Specific semantics. In these MPU, the names of cookware are varied (*Engl. sieve, barrel; Pol. korzec* served for measurement and transportation of grain, flour, porridge; *Pol. rzeszoto* is used to sift grain and flour).

The historical source of the described MPU is the famous Plato's comedy (*Komlev, 2000*). In the organization of these MPU the metrological names of old units of volume and capacity of friable bodies and fluids *Engl. Sieve, Germ. Sieb, Pol. sito / rzeszoto / korzec, Ukr. пеуемо* are being used. The usage of a metronome *sieve* (a realm that was once used to sift grain and varied from the *sieve* with less wider mesh openings) and the inadequate form of the verb (*Engl. to carry, Germ. schöpfen, Pol. mierzyć / czerpać, Ukr. мiряти/ набирати*) in a redefined meaning “to repeat the same action monotonously” affects the enhancement of the value of this PU and gives the wider emotion to the statement. The Ukrainian native speakers often use a reduced version of the MPU - *мiряти воду*.

Synonymically correlated with the described are MPU *Engl. pour into a sieve; Ukr. лити воду в пеуемо/ сумо; носити воду пеуемом/ сумом* “wasting time on something” come together with a redefined, figurative value and humorous-ironic connotation: *Богуна ловити, що воду пеуемом носить (Palamarchuk, 1993)*. MPU *Engl. to carry water in/ into a sieve/ barrel; pour into a sieve; Germ. Wasser in ein Sieb schöpfen; Pol. lać wodę w sito/ do sita; lać wodę do naczynia bez dna; lać wodę do dziurawego naczynia* also contain one more meaning – “waste of money; investing into a business that will not make a profit” – and are used with an ironic connotation.

In modern Polish media, innovative variants of this MPU are used – *wozić/ nosić wodę do Wisły; nosić wodę do Dunaju*. They are more often used in the headings of articles for the negative characteristics of the financial situation, mainly: to emphasize the financial subsidies to bankrupt enterprises.

In the organization of the MPU *Pol. wodę czerpać przetakiem* a metronome old unit of volume and capacity *przetak* is used (a sieve denotes a utensil with wide openings of a grid, it is not suitable for digging water) and an undeclared form of the verb *czerpać* in the redefined meaning “often monotonously repeating the same action”.

In the Ukrainian language the MPU *ситом черпати воду; черпати/ таскати воду решетою* is also used with identical semantics “making efforts will not bring a positive result; the chosen methods will not bring the expected result”. The feature of using the Ukrainian MPU *черпати у діржавій кадуб*, which is used with synonymous meaning, is that the metronome *кадуб* is preserved in its component composition reflecting the national-cultural specifics of the use of this PU. Metrological unite *кадуб* was widely used in agriculture and everyday life and denoted a barrel, carved from one piece of wood, without a bottom and a tire (*Yaremenko, 1999*).

In the German language there is a synonymous MPU *Wasser ins Meer tragen* (carry water to the sea) that has a meaning “a lesson that has no result; futile, senseless work”. In English, German and Ukrainian languages there are synonymous MPU, which are used with the opposite connotation: in the British English – *you can not carry water in a sieve; you can not draw water with a sieve*; in the American version – *you can not measure water with a sieve*; German – *Ein Sieb hält kein Wasser* (water is not carried with a sieve); Ukrainian – *ситом моря не черпають; решетою воду неносять*. These MPU contains additional information on the practical usage of metronome *Engl. sieve, Germ. Sieb, Ukr. cymo* and stresses the pragmatism of knowledge that is known to native speakers.

With an irony, the Ukrainian MPU are also used *укр. дурня вчити, що решетою воду носити; жартувати над дурнем, що черпати воду решетою*. And the Ukrainian saying *голова – решето; голова як решето* is used when talking about a forgetful person.

Another semantics is implemented by synonymous MPU: *Engl. water in a sieve; Ukr. вода у сити; Germ. wie Wasser in einem Sieb; Ukr. як в решети воду* “is not true; very little; not at all”. Generalized meaning and specification of the statement is expressed in the Ukrainian PU *стільки правди, як у решети воду*.

German MPU *da sieh mal einer an!* is well known to Ukrainians: this MPU is *чудеса в решети* meaning “something wonderful, unusual; fictional”. These MPU have an ancient origin. The etymological roots of these MPU date back to the XVI-XVIII centuries when a special method of divination using a sieve has spread in Russia. In the XVI-XVIII centuries in the market squares of Moscow one could see people who poured multicolored lentils, beans, peas or almonds into a sieve and practiced witchcraft. Breaking the sieve, they predicted the future with the placement of grains, creating incredible and fantastic stories, predicting a happy marriage, unexpected wealth or extraordinary events, adventures and miracles. Such charlatan predictions with a mockery were called *чудеса в решети* (miracles in a grid). The generalized semantics “very wonderful, fictional history” was fixed by the Ukr. *диво, як сито, – а чудо, як решето*.

With the name *sito* in the Polish language, the proverb *jeden doi kozła, a drugi sito podstawia* is recorded, which transmits the meaning of “useless, purposeless work that does not give benefit”. The origin of the proverb is explained by V. Kopalinsky (*Kopaliński, 1997*), it is derived from a well-known legend, which refers to two philosophers who have been discussing different topics for a long time. The proverb *Pol. jeden doi barana, drugi sito podstawia* was also used as a satire for people who do not know how to do the household job.

In the Ukrainian language MPU is often used *проїтти/ переїтти (вже) крізь сито і решето*, which means “to undergo all kinds of tests, to gain a lot of positive experience”.

Similar to previous is MPU Ukr. *проїти/ переїти крізь/ через густе сито* “to hold a thorough selection”. In German there is MPU with the similar meaning *mit allen Wassern gewaschen sein*.

The MPU Germ. *durch das Sieben* “indistinct, fuzzy, unobstructed contours” is synonymic with Ukr. *як/ мов/ ніби крізь/ через (густе) сито*. If such components as *сіяти, сіятися* are present in the immediate closeness to the Ukrainian MPU it then indicates the meaning “thick, continuous rain; mist”: *Дощ не вгавав, а по-вчораашньому сіяв, як крізь сито* (Palamarchuk, 1993).

In the metrological phraseology of the three languages, the synonymous MPU are used: Germ. *zerrissen wie ein Sieb*; Pol. *podziurawiony jak rzeszoto*; Ukr. (дірваний) *як решето* “full of holes”. In the Polish, lexical unit *przetak* is used, with the meaning “hollow”, when it comes to a person who does not know how to keep a secret. With the name *przetak* component in the Polish folklore phraseology there is a MPU *wziąć na przetak / przepuścić przez przetak* “to condemn someone; criticize, analyze, evaluate someone” (Kopaliński, 1997).

According to the linguistic and cultural description of the semantics of metrological phraseology with metronomes Engl. *sieve*, Germ. *Sieb*, Pol. *rzeszoto/ przetak*, Ukr. *пешето/ сито* was revealed that these MPU generally retain semantics, which correlates with the peculiarity of the use of this realm in the household economy, as well as with a figurative rethinking and peculiarities of the form of this realm.

MPU with a name Engl. *bushel*, Pol. *korzec*, Ukr. *корець* in English, Polish, and Ukrainian languages cover about 40% of the material. Metrological name Engl. *bushel*, Pol. *korzec*, Ukr. *корець* is presented in the phraseology of the three languages. This is the name of the dish, which served as a measure of the grain of baking products, flour and porridge. Y. Shymansky notes that more than 250 kinds of this type of unit were established in Poland (Szymański, 1972). The size of the bushel was not generally accepted due to regional differences, and therefore the use of the bushel varied, 34-43.7 liters (Komlev, 2000).

In Ukraine, the name *корець* was distributed in the form of a round vessel with a handle. It was used not only for measuring and preserving friable agricultural substances, but also for pouring water, milk, wine, as well as for harvesting grain and flour (Doroszewski, 1959). The Ukrainian *корець* had phonetic variants of *коряк, кірець* and lexical doublet *совок*, which was used without restrictions (Tkach, 2003).

In three languages, English, Polish and Ukrainian, a semantic model was recorded “to carefully hide something, to hide it; to keep secret, to prevent disclosure of information”, presented in the metrological MPU of three languages: Engl. *to hide one's light under a bushel*; Pol. *schować/ chować/ ukryć/ kryć/ trzymać coś pod korcem/ korzec*, Ukr. *ховати/ сховати під корець/ під корцем*. Their first example is the Latin phrase *Tempus omnia revelat* “everything will become obvious”. Vladyslav Kopalinsky gives a biblical legend about the origin of this statement (Kopaliński, 1997).

Ian Godyn in his work "Od Adama i Ewy zaczynać. Mały słownik biblizmów języka polskiego" notes, that the basis of Polish MPU *chować / brać coś pod korzec / pod korcem; trzymać / kłaść coś pod korcem* was laid down in the Bible, which had its impact on a significant number of MPU, and clarifies their semantics “to conceal something, to try to conceal it; to keep secret”: Nie może się miasto zakryć na górze osadzone ani zapalają świece i kładą jej pod korzec, ale na świeczniku, aby świeciła wszystkim (Heidegger, 2004). They are characterized by the variability of the undifferentiated form of verbal components (*chować / brać / trzymać / kłaść*) and forms of accusative and ablative cases (*pod korzec / pod*

korcem). Innovative is the MPU *ukrywać coś pod pieżyną*, in which the change of imagery emphasizes the negative attitude of the speaker to the situation.

Introduction of the pronoun *your* to the component of the English MPU *to hide your light under a bushel* specifies the person to whom this situation applies. As part of Engl. *to hide one's light under a bushel* the English language tradition has kept the name of the national metrological unit *bushel*, which is a modern unit of capacity and volume of friable bodies and liquids in countries with the English measurement system, with an average capacity of 35-45 kg (Komlev, 2000).

The source of a large number of metrological MPU is not only the Bible, but also the material and spiritual life of the people. So, giving a negative characteristics to two or more people who have very similar or similar negative traits of character, only the Polish phraseology has retained the MPU *w korcu maku się dobrać, znaleźć; dobrać się (jak) w korcu maku: jeden złodziej, drugi pijaka – dobrali się w korcu maku* (Doroszewski, 1959).. Depending on the context, these MPU can be used with a positive characteristic of people who fit each other and form a coherent pair or are similar: *To dziewczyna silna, a on jakby dla niej stworzony. W korcu maku się dobrali* (Doroszewski, 1959).

In Polish language, MPU with a component-name *korzec* is written down, which reflects the agricultural human activity, and more specifically – agriculture. These MPU are regional and give a negative characteristic to Polish agricultural soils. So, widely used Polish MPU *korzec wysiał, kopę zebrał, kopa korzec daje* – is used in a negative statement about lean soils in some areas of Poland, containing a shade of grievance.

The usage of names contrasting of the metrological unit of volume and capacity *korzec* and the names of the countable unit *kopa*, as well as the names of different volumes and capacities *korzec – ćwirć* enhances the emotionality of the expression: *daleko słyną Opoczeńskie kraje: korzec sieje, kopę zbiera, korzec kopę daje; daleko słyną Opoczeńskie kraje: któż wie, czy z korca wysianego zbiorę ćwirć; Opoczyńskie kraje: korzec wysiej, kopę sprzątniesz, kopa korzec daje*. In this statement, variations of names of the territory with non-fertile soils are allowed: *Olkuskie kraje; przy Skudzawach*. MPU implements the meaning “the result obtained does not justify financial expenses and labor invested”.

Observations of the nature and birds are reflected in the Polish MPU *Wieśniacy mówią: wróble rodzą się korcami, a mierzą miarką na wiosnę*. Poles use this statement when they talk about the number of birds in different seasons. There are a lot of birds in summer and autumn, but little less in the spring (in winter many birds die).

Somewhat different is the semantics of another Polish MPU *chłopa korcem nie mierzą/ nie mierz chłopca na korce* “a man of great height”, used to characterize and assess a person by external characteristics, by ones height. It also has a connotative sign – height is not the main criteria for assessing a person.

In Ukrainian MPU *знати/ пізнати/ узнати чому/ почім корець лиха* the former names of Ukrainian units for the designation of friable bodies are given, which vary: *корець/ пуд/ ківш/ фунт*. MPU *Ukr. знати/ пізнати/ узнати чому/ почім корець/ пуд/ ківш/ фунт лиха* is characterized by the variability of verbal components. It is used in the meaning of “having a great life experience; experience of having a lot of troubles”.

The meaning of “disobedient man will be punished” is implemented in a multi-structured MPU: *Pol. kto z korca się wychyli, to go strychulcem w łeb; nie radziłbym ci głowy podnosić nad korzec, żebyś nie wziął, strychem; kto z korca się wychyli / kto wyjrzy z korca, to go strychulcem w łeb*. At the heart of its figurative rethinking lies its lack of a single metric system, the existence of phrases, which constituted a larger/greater measure of grain.

Since ancient times, the Slavs have been engaged in agriculture, cultivating land and cultivating grain, therefore pragmatic knowledge of the speakers regarding the use of metrological units to denote the volume and capacity of corn (*korzec*) and square (*sznur, staję*) are the basis of the Polish proverb *rolę korcem mierz, nie sznurem i nie stajęm*. The name of the metrological component of the volume and capacity *korzec* and the old large units of measurement of the surface *sznur, staja* are contrasted in the proverb and figuratively form the meaning of “the result of labor is measured not by the cost of cultivating the soil, but by the amount of collected grain”.

The Polish MPU *niepoczciwości to by nawet korcem nie zmierzyć* conveys the conviction by the speakers of dishonesty as a negative personal characteristic. The emotional part of the statement is influenced by the use of the name of the metrological unit of inaccurate capacity and the weight of corn *korzec*. With a negative connotation in Polish colloquial phraseology *diabłów korcami odmierzać* is used, meaning “curse”, is motivated by the absurdity of the action and gives a negative characteristic of the person.

Speaking about the distant family, the Poles use the old saying *ledwo by korcem maku powinowactwo dorachował*. In Ukrainian phraseology the expression *через пень колода; родич через десяте коліно* has a different imaginative basis that emphasizes the national-cultural specifics of these expressions. In Ukraine, the metrological name *корець* was used in the old times mostly as a fee for a miller for a mild grains (Yaremenko, 1999). For instance: *Моє діло мірошницьке – підкрутити та й сіяти, а коряки беру!* (Nomys, 1993) is used with the meaning “a tricky job”.

The described linguocultural peculiarities of semantics of MPU prove that the metrological names that was common in the past used to denote the size of the grain of friable bodies *Engl. bushel, Pol. korzec, Ukr. корець* found its expression in the phraseology of the three studied languages, which is explained by the widespread use of this metronome in ancient times in the exchange of agricultural products in England, Poland and Ukraine. In the component context of the German metrological MPU of this name, the designation of such a unit of volume and capacity as *корець*, was not revealed, probably because the realm denoting this metrological unit was not widely used in Germany. Linguistic and cultural semantics with the names *Engl. bushel, Pol. korzec, Ukr. корець* is mainly associated with the method of using this metronome with associative factors and with the inherited knowledge of the etymology of the PU.

MPU with the metronome-weight unit *Engl. pound, Germ. Pfund, Pol. funt, Ukr. фунт* in our study is about 5% of the material. Metrological names of *Engl. pound, Germ. Pfund, Pol. funt, Ukr. фунт* refer to one of the oldest measures of weight that has long been out of use and has a Latin origin. This measure of weight is very different in many countries of the world (400-453.6 g.) (Bilodid, 1989). Interestingly enough is the fact that the metronome *pound* is the name of the English unit of weight, which is 453.6 g, the monetary unit of Australia and New Zealand (Bilodid, 1989).

In our work there are only two MPU, presented by a variant-synonymous range of English and German MPU, built on the opposition of the names of larger and smaller units of weight: *Engl. a hundred pounds of sorrow will not pay one ounce of debt; in a thousand pounds of law there's not an ounce of love; mischief comes by the pound and goes away by the ounce; an ounce of mirth is worth a pound of sorrow; an ounce of mother-wit is worth a pound of clergy; Germ. Böses kommt geritten, geht aber weg mit Schritten; Ukr. лихо приходить скоком, а відходить кроком; Germ. Böses lässt sich leicht verrichten, aber nicht leicht wieder schlichten*. They are used in the meaning “one need to be responsible for

a bad behaviour". The Ukrainian MPU *легко біду накликати, а важко їй зарадити* is synonymous to them. Visualisation of the metrological MPU of this variant-synonymous series is based on the opposition of the names of two metrological units of unequal weight (*Engl. pound, ounce; Ukr. скок, крок; пуд, золотник*) that rises the emotional side of this saying.

In the Ukrainian language the MPU *лихо приходить фунтами/ корцями, а відходить золотниками* has been recorded which has more general semantics "trouble, misery comes unexpectedly and always not in time; human health is lost quickly, but returns slowly". This MPU preserves the names of former metrological units: weights (*фунт, корець*), a small monetary unit of high quality (*золотник*).

Metrological phraseology with the name *Engl. pot, Germ. Krug, Pol. dzban, Ukr. дзбан* is presented in four languages, it is about 15% of our factual material. A linguistic and cultural characteristic of the semantics of these MPU is their usage whilst negative assessment of the external appearance of a person, mainly for the ironic characteristics of human growth. A small people's height was rarely laughed at straight in order not to offend a person. The speakers of the three studied languages, Germans, Poles and Ukrainians, are used the MPU that positively characterize people who have a small height: *Germ. kein, aber fein* (little but beautiful/nice); *rein aber oho!: kaum drei Kase hoch* (literally means: only three peaces of cheese); *Ukr. від горшка два/ три вершка; такий малий, накрив би його решето* "a child or a person of a small height". In the component context of these MPU the national specifics of the perception of the speakers of each of the four languages is preserved. These MPU are semantic equivalents, have the same emotional color and contain an ironic connotation. However, only the image of the Ukrainian MPU refers to associative ties with the size of the names of the three metronomes: two metronomes of volume and capacity (*горщик і решето*) and one metronome of a small measure of the length (*вершок – 4.4 cm*), which was used in Ukraine before implementation of a single metric measurement system. For example: *Тобі вже одинадцять років, а ти від горшка – два (три) вершка (Bilodid, 1989)*.

The moral and ethical connotation in its meaning has the MPU *Germ. Eine Hand voll Achtung ist besser als eine Metze Geld; Ukr. жменя/ оберемок поваги краця, аніж дзбан грошей* and *Germ. Es ist noch kein Meister vom Himmel gefallen (Es wird keiner als Meister geboren. Es fällt kein Meister von Himmel); Ukr. не святі горшки ліплять, а прості люди; не святі горшки ліплять (а такі ж люди, як і ми, гришні)* and is used in the meaning "only a person with a strong will can learn to do any work".

In English, German, and Ukrainian languages synonymous are MPU that express the negative characteristics of two or more people, whose behavior causes disapproval: *Engl. such a cup, such a cruse; Germ. den Topf am Kochen zu halten; Ukr. яка чашка, такий і глечик; Engl. such pot, such pot-lid; Ukr. який горщик, така і кришка*. A more pragmatic approach is to define this concept in the statement – *укр. яке їхало, таке й здибало* where the name of the metrological component does not take part in its formation. MPU *Eng. to keep the pot boiling; to keep the pot on the boil* means "a little earnings; to earn a living; to make ends meet" are variational. In the Polish metrological phraseology, this metronome was not found.

MPU *Germ. Da ist die schwarze Katze dazwischengekommen; Ukr. злека розбили/ побили; злек/ горщик розбиту* "to break friendship; lose good relationship; quarrel" (*Bilodid, 1989*). Linguistic and cultural semantics of the given MPU *Da ist die schwarze*

Katze dazwischengekommen is built on the image of a black cat as a demonic being, which interferes into the business and spoils its result – *schwarze Katze dazwischengekommen*.

The pottery craft was reflected in the existence of the MPU *Germ. Der Krug geht so lange zu Wasser (zum Brunnen), bis er bricht; Pol. dopóty dzban wodę nosi, dopuki się ucho nie urwie; Ukr. доми дзбан по воду ходить, доки не розіб'ється* – a sign of damage and defect – these are signs of mostly ceramic or glassware, which in ancient times was used on the farm.

Linguocultural features of the semantics of metrological MPU with a metronome name in four languages *Engl. pot, Germ. Krug, Pol. dzban, Ukr. дзбан* focus mainly on denoting the negative characteristics of people whose behaviour causes condemnation, as well as the denial of friendly relations. These MPU give a negative characteristic of the human's behavior and realize the following values, which their linguistic tradition established focusing on associative ties.

To conclude, linguistic and cultural peculiarities of the semantics of metrological MPU with components-specific names of metrological units are being analyzed to express the volume, capacity and weight in the English, German, Polish and Ukrainian languages: with components-specific names of volume and capacity of bulk bodies *Engl. sack/ bag, Germ. Sack, Pol. worek, Ukr. мішок*; with a component name of volume and capacity of the corn and fluids measure *Engl. barrel, Germ. Faß/ Fass, Pol. beczka, Ukr. бочка*; with specific names of the volume and capacity of friable bodies *Engl. sieve, Germ. Sieb, Pol. rzeszoto/ przetak, Ukr. пeшeтo/ cутo*; *Engl. bushel, Pol. korzec, Ukr. коpecь* in English and Ukrainian languages; with metronome-type name *горщик/ глечик* in the Ukrainian language and the metronome-type name *Engl. pound, Germ. Pfund (Ukr. фунт)*.

Conclusions

In the described metrological phraseology of the four languages the moral and ethical values are reflected, as well as the way the native speakers perceive the world and its existence in it through the prism of ancient metrical systems. Each nation has its own culture; therefore, metrological MPU with metronome serves as the key to understanding different aspects of the culture of the four languages.

The study of linguistic and cultural semantics of metrological phraseology with component-specific names expressing volume, capacity and weight in the English, German, Polish and Ukrainian languages allows to determine and clarify the estimated functions of the PU in the cultures of the studied languages. Metrological phraseology of English, German, Polish and Ukrainian languages as an integral part of national culture is a set of national-cultural codes, which is endowed not only with information but also with national-cultural specifics. The figurative characteristic of data of metrological PU is closely related to the metric systems of England, Germany, Poland, Ukraine, which affects the peculiarities of their linguocultural semantics.

Metrological phraseology with components-specific names of metrological units expressing volume, capacity and weight is an important means of emotionally-expressive speech, because it gives a special note to the meaning of what is said. The peculiarities of the linguistic and cultural semantics of the metrological MPU of the four languages lie in the realization of such meanings that, on associative bonds, they establish a linguistic tradition behind them.

An analysis of the linguistic and cultural characteristics of the semantics of metrological MPU with the components of the specific names of metrological units of volume, capacity and weight in the English, German, Polish and Ukrainian languages extends the understanding of the surrounding reality, perceives the richness of figurative linguistic means, the emotional and mental life of the four nations.

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LANGUAGE MEANS IN POSTMODERN DRAMA AND SHAKESPEAREAN DRAMA: COMPARATIVE ASPECT

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Abstract. The article is focused on the similarities and differences in language means in postmodern drama and Shakespearean drama. It deals with the development of drama in the sixteenth century till the twentieth century. The aim of this article is to investigate characters and language means in the drama world and to compare them to those of the contemporary drama and the drama of the Renaissance.

Keywords: drama, postmodern drama, Shakespearean drama, comparative aspect, a postmodern character, a Shakespearean character, language means.

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Introduction

In the history of literature theatre played a very significant role in human life, ensuring access to the greatest dramas of worldwide literature. Originally the term ‘drama’ was derived from the Greek language and it meant ‘action’.

Since its beginnings drama as a literary genre it was divided into *tragedy* and *comedy*. It is also connected with the two masks showing this traditional generic separation. In addition to this, those masks became symbols of Greek goddesses, Melpomene and Thalia. Melpomene has the weeping face, and as a result she is the Muse of tragedy. Thalia is the Muse of comedy because of the laughing face.

All linguistic aspects that are discussed here present the main peculiarities of the Shakespearean drama as well as the postmodern drama. In this article we put special attention to the distinction between postmodern and Shakespearean characters and language means.

At all stages of its development drama has always been deeply connected with social and historical changes as well as intellectual movements. Those factors had a strong influence on art and literature. Without any doubt they contributed to the growth of drama both in the sixteenth century and in the twentieth century. As a consequence, the substantial status of drama is greatly highlighted, especially when we focus on issues like postmodern drama and Shakespeare’s drama in comparison.

Being pre-eminent representative of knowing and interpreting Shakespeare’s works, S. Greenblatt attaches the remarkable significance to William’s role for the development of drama:

“Shakespeare’s plays, it seemed, had precipitated out of a sublime confrontation between a total artist and a totalizing society. By a total artist I mean one who, through training, resourcefulness, and talent, is at the moment of creation complete unto himself; (...)

The result of this confrontation between total artist and totalizing society was a set of unique, inexhaustible, and supremely powerful works of art” (Greenblatt, 1988:2).

With reference to postmodern drama another critic M. Esslin accentuates the important role of postmodern playwrights. He states that: “(...) these plays have *worked*, they have had an effect, they have exercised a fascination of their own in the theatre. At first it was said that this fascination was merely a *succès de scandale*, that people flocked to see Beckett’s *Waiting for Godot* or Ionesco’s *Bald Primadonna* merely because it had become fashionable to express outrage and astonishment about them at parties. But this explanation clearly could not apply to more than one or two plays of this kind. And the success of a whole row of similarly unconventional works became more and more manifest. If the critical touchstones of conventional drama did not apply to these plays, this must surely have been due to a difference in objective, the use of different artistic means, to the fact, in short, that these plays were both creating and applying a different *convention* of drama” (*Esslin, 1965:1*). As mentioned above, the similarities and differences between postmodern and Shakespearean dramas will be highlighted in this article.

Postmodern Drama Versus Shakespearean Drama

Generally, the English writers have always been fascinated by Italian Renaissance that refers to the ancient Greek and Roman tradition (*Pitcher, 2001: 93-95*).

The English playwright, William Shakespeare is especially inspired by Italian pattern that has an enormous influence on his works. His renewed interest in ancient culture contributes to the growth of a new drama that rejects the medieval plays. Consequently, the author draws special attention and interest to Aristotle, Plato and Cicero, because the Renaissance mainly means the revival of classical sources that can be observed in philosophy, art and literature (*Bernacki, Pawlus, 1999: 217-218*).

As already noted, the Renaissance literature in England is primarily characterized by the development of drama. It commences in the second part of the sixteenth century (*Sikorska, 2002: 98*). William Shakespeare contributed to the growth of professional drama and theatre in England that were additionally supported by Queen Elizabeth I as well as her Privy Council (*Edwards, 2001: 112*). During her long reign, the theatre was successful with the troupes of actors who ensured amusement and joy. In 1576, *The Theatre* and *The Curtain* were built as London’s first playhouses (*Sikorska, 2002: 100*). Next, a theatrical company that is known as *the Lord Chamberlain’s Men* was created. William Shakespeare, as a member of that group, helped to direct it. He acted for it as well as wrote plays for the company that achieved success (*Womack, 2006: 119*). *The Globe Theatre*, which was built in 1599, was the theatre that can be said to have been the most associated with W. Shakespeare. Obviously, his dramas including history plays, tragedies and comedies were presented on the stage of the *Globe Theatre* (*Sikorska, 2002: 100*).

The most prominent representative of the postmodern literature and the *Theatre of the Absurd* is, undoubtedly, Samuel Beckett, who is glorified by J. P. Sartre and T. W. Adorno for his manifestation of nonsense (*Adorno, 1961: 119-150*). His works refer to the ancient as well as Renaissance traditions. This is especially accentuated by M. Esslin:

“The ancient traditions combined in a new form in the Theatre of the Absurd are: the tradition of miming and clowning that goes back to the *mimus* of Greece and Rome, the *commedia dell’ arte* of Renaissance Italy” (*Esslin, 1965: 1*).

Originally the name 'postmodern' was adopted in the 1880s when J. W. Chapman implies that "a Postmodern style of painting" was a way to reject the French Impressionism (Hassan, 1987: 12). In 1926, B. I. Bell publishing *Postmodernism and Other Essays* used as the first the term 'postmodern' as the historical epoch succeeding Modernism (Madsen, 1995). Postmodernism is a response against Modernism and the events connected with the Second World War, like the atomic bombings of Hiroshima and Nagasaki or Japanese-American internment (Geyh, Leebron, Levy, 1997: 510).

Samuel Beckett is categorized as the most important contributor to the postmodern aesthetic. The four playwrights Samuel Beckett, Arthur Adamov, Eugène Ionesco and Jean Genet are associated with the postmodern movement as well as the *Theatre of the Absurd*. Each of them has unusual features that even go beyond the phrase 'absurd' (Esslin, 1961). What is more, the major production *Waiting for Godot*, written by Samuel Beckett was performed on 5 January 1953 at the Théâtre de Babylone in Paris (Federman, Graver, 1997: 88).

This comparison proves that, both Shakespearean and postmodern drama are similar due to rejection of the old tradition and the previous order. Moreover, the intellectual representatives have a large influence on the development of drama and theatre in the sixteenth and twentieth centuries.

Character and Language Means in the Shakespearean and Postmodern Drama

Thinking about literature in Renaissance it must be said that William Shakespeare appears as the most important playwright, who produced plays in different genres such as comedies, tragedies or histories (Sikorska, 2002: 110). In order to compare and best reflect the differences between Shakespearean and postmodern literature, we focus our attention on William's comedies, their characters and language.

The Shakespearean comedy in the Elizabethan age is characterized by happy ending of the story as well as uniting the single characters in a marriage. Shakespeare's comedies contain the internal and external arguments of the characters (Denton, 1877) as well as the struggle between Dionysian and Apollonian principles. Dionysian values refer to instincts and feelings, and Apollonian values are associated with logic, rationality and reasonable thinking (Szent-Györgyi, 1972: 966). Shakespeare's comedies have a tendency to emphasize the situation, especially the problems of young lovers that are introduced by elders. What is more, the lovers are usually isolated, and then re-united. Mistaken identity of characters is also presented (Sikorska, 2002: 113-116). The individuals are involved in a muddled and confused situation that is beyond the consciousness of the characters. These circumstances can comprise the whole comedy, and they can excite the attention of the audience (Denton, 1877). Following Sikorska, *Taming of the Shrew* belongs to one of the earliest comedies of Shakespeare that are characterized by the element of farce and happy ending. In his comedy *As You Like It* the whole story concentrates on the conflict between brothers. The story finds its happy end because love is a more important feeling than other ones. Besides, to his most popular comedies are included such great works like *The Comedy of Errors*, *A Midsummer Night's Dream*, *Twelfth Night* and *The Merchant of Venice* (Sikorska, 2002: 113-116).

According to Sikorska, it has to be emphasized that the characters communicate in an elevated language. It is due to the fact that Rhetoric as a subject plays a significant role in Renaissance universities. The language itself in the Elizabethan drama is of great value, and that is why the writer emphasizes the use of impressively beautiful verse. Additionally, the

lines are filled with sophisticated words, subtle metaphors or epithets. What is more, the Aristotelian unities of place and time are disregarded. However, a classical category of comedy and tragedy is maintained (*Sikorska, 2002: 101*). Following Zbierski, the comic effect in William's plays is the result of brilliant dialogues as well as clashes between different social classes (*Zbierski, 1988: 102*). Furthermore, realism in his comedies is less important than rhetoric. The beauty of the language is the great value of his works.

In conclusion, his works are a form of therapy for people through the use of laughter and entertainment (*Edwards, 2001: 120*), as is confirmed by the following words:

"Laughter alone is not enough to make the healing power of comedy work; the laughter has to be generated within an action that moves the characters from discord, separation, and unhappiness to peace, unity, and concord" (*Edwards, 2001: 121*).

In contrast to Renaissance literature, absurdity may be defined as "the inevitable devaluation of ideals, purity, and purpose" (*Esslin, 1961: 24*). It is the result of the urban development, the prevalence of information technology as well as the growth of virtual environment (Albert, Babelyuk, Koliassa). All these factors have a large influence on the reification of the character who feels "very uncomfortable in the cold Universe" (*Babelyuk, 2016:15; Mankovskaya, 2009: 495*). Moreover, E. Ionesco determines what absurd is and defines the condition of a person in postmodern time:

"Absurd is that which is devoid of purpose... Cut off from his religious, metaphysical, and transcendental roots, man is lost; all his actions become senseless, absurd, useless" (*Esslin, 1961: 23*).

In addition to that, the world seems to be chaotic, self-contradictory and disordered (*Babelyuk, 2016: 20*). As a consequence, the character goes through a mental crisis and becomes aware that he lives in a world full of threats and violence (*Babelyuk, 2015*).

It is worth noting that the protagonist in the postmodern drama is lost in the unintelligible universe. He rejects rational thinking (*Sikorska, 2002: 432-434*). He uses banalities and functions like a robot pushed into a routine, for example Eugène Ionesco takes in *The Chairs* the word "uber-marrionettes" in order to describe the Old Man and the Old Woman (*Lamont, 1993: 72*). The character type is often flat, stereotyped and archetypal (*Cronin, 1999: 424*). The protagonist is in crisis as he lives in a world that is inexplicable for him. O. Babelyuk accentuates the role of the contemporary character:

"Postmodern character generates the sense of absurdity and nonsense, because the border line between fiction and reality, metaphorical and literal meaning is very fragile. He also deprives the reader of all possible stable points of reference and cancels his own messages by total contradictions. As the result, a postmodern character possesses various mental disorders, and schizophrenia among them" (*Babelyuk, 2018: 9*).

What is more, the plot of many postmodern dramas presents major figures in interdependent couples, for instance two males or a male and a female. Becket's critics describe it as "pseudocouples" (*Astro, 1990: 116*). The two protagonists are equal or interdependent like for example Vladimir and Estragon in *Waiting for Godot* (*Bradby, 1991: 59*); the passive character can be dominated over even tortured by the other figure like Pozzo and Lucky in *Waiting for Godot* or Hamm and Clov in *Endgame*; the relationship of the protagonists can be changed suddenly throughout the play as in Eugène Ionesco's *The Lesson* (*Hinden, 1986: 401*).

In contrast to Shakespearean language, the dialogues in Absurdist dramas are mostly naturalistic. The protagonists use the nonsense language or cliché, and it makes the Theatre of the Absurd outstanding (*Lewis, 1966: 260*). The language is often characterized by phonetic,

musical and rhythmical features (*Albee, Kolin, 1988: 189*). It includes nonsensical stereotypes, burlesque entertainment as well as meaningless nonsense (*Hinden, 1986: 401*). Additionally, in Beckett's plays the dialogues show incapability to create a connection and the nonsensical language manifests this separation (*Kane, 1984: 159-160*). It causes ridiculous effects as in Lucky's long speech in Beckett's *Waiting for Godot*. In Pinter's *The Birthday Party* absurd and nonsense are used extremely offensively, especially when McCann and Goldberg torment Stanley with evidently senseless questions. Hence, nonsense in the Theatre of the Absurd indicates the limitation of the language while showing an interest in getting to know the truth (*Silverstein, 1993: 33-34*). Moreover, in the postmodern drama there are used a pastiche of various textualities and media forms as well as total experimentation in style and ideas. What is noteworthy is the fact that "Postmodern literary texts combine, transform, and subvert the conventions of several narrative subgenres, go beyond the boundaries of fiction, and integrate various text-types" (*Babelyuk, 2017: 25*).

Considering the above, the characters and language in the postmodern and Shakespearean drama are quite different. This contributes to the fact that Shakespeare's Theatre and the Theatre of the Absurd are remarkable achievements in world history.

Conclusions and suggestions

In conclusion, this article focuses on the comparison of postmodern drama and Shakespearean drama. It shows both similarities and differences between them. The development of the drama in the sixteenth century and in the twentieth century is also presented.

It should be stressed that postmodern drama and Shakespearean drama have many features in common. This is mainly a reference to the classical model, which has its origins in ancient Greece and Rome. The common features are also the rejection of the old order and its replacement by a new one. The main differences are based on the creation of the hero as well as the language used in the dramas.

The protagonists of Shakespeare's comedies are entangled in difficult and often funny situations, which end happily. Beautiful metaphors or epithets are a characteristic feature of Shakespeare's works. The language is also characterized by brilliant dialogues.

On the other hand, the protagonists of the postmodern drama live in the absurd. Their existence is connected with senselessness. They are lost in a chaotic world. Dialogues are characterized by naturalistic elements.

The main point of interest in this article is a comparison of Shakespeare's and postmodern works. However, regardless of the similarities and differences shown, it should be stressed that both William's works and the authors of postmodernism are undoubtedly an achievement of the world's literature.

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TRANSLATION CRITICISM AS A MEASURE OF LINGUISTIC COHERENCE IN THE TRANSLATION PROCESS

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Abstract. The article is focused on the role of translation criticism in the modern translation studies. Every translator in his work aims for achieving linguistic coherence between the Source Text (ST) and Target Text (TT). The notion of translation criticism, which is an important measure of achieving this goal by the translator, is highlighted. The theory of scenes and frames in modern translation studies is also analysed in the article.

Keywords: translation criticism, linguistic coherence, scenes-and-frames theory, translation studies.

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Introduction

An immensely important, yet sometimes forgotten element of the translation process is translation criticism. This article is focused on explaining the notion of translation criticism and its role in modern translation studies. Different viewpoints on this topic have been pointed out. Some exemplary models of translation criticism are given in order to analyse the main feature of this linguistic process. In the article one of important theories, called the theory of scenes and frames is explained, and the linkage between translation criticism and this theory has been described. As one of the most required elements of the translation process, coherence has also been connected with the topic of translation criticism, for this is a great measure of translator's work and the final effect of the translation process.

The Notion of Translation Criticism and its Key Features

For hundreds of years translators have played a major role in the mankind communication. Translation Studies, a concept that consists of "translation theory, translation production" and "translation product", is often focused on different processes and methods that constitute translation (*Valero, 1995*). Different points of view have emerged in this field and some of them showed the necessity to "combine and connect" all of the translational aspects (*Lambert, van Gorp, 1985: 50*). One of these aspects can be viewed as Translation Criticism (TC) as an individual "research field" (*Valero, 1995*).

Taking translator's work into consideration, "translating is a decision process", which means it consists of various situations that can also be called "moves" (*Levý, 2004: 148*). A translator can decide how many moves he will make and needs to make other important decisions in his translation process. TC should be taken seriously as one of such moves, especially with literary translation. "Translation can be seen as a problem-solving activity in

which a source element may be rendered by one or more elements in the target language” (*Babelyuk, Galaidin, 2018: 99*). What is more, in the translation process some “special strategies, procedures, techniques and methods” are necessary (*Babelyuk, 2017: 23*). It is clear, however, that different types of translated texts have different rules and are treated disparately. There is also no stated standard for translation – depending on the purpose, the effect of a translation process can be better or worse. The role of TC is to define this effect as a more or less coherent and to observe different processes appearing in it.

Scholars have different opinions on TC. At least one of them “has suggested that” it should “be considered a separate area of applied translation studies” (*Maier, 2009: 237*). Some others claim that TC “is an essential link between translation theory and its practice” (*Newmark, 1988: 184*) or that it allows to release the truth of a translation. One of TC models was described by Hans J. Vermeer as 3 important steps: 1) to analyse the TT in order to decide whether it “fulfils the aims declared by the translator”; 2) to analyse the ST’s intentions; 3) to compare both texts “by reference to their (possibly different) aims” (*Vermeer, 1998: 63*).

A more developed theory by Margret Ammann consists of 5 tasks: 1) to establish the “function of the translation in the target culture”; 2) to determine the translation’s coherence; 3) to analyse ST’s function “in the source culture”; 4) to determine the ST’s coherence; 5) to compare the “intertextual coherence” between ST and TT (*Snell-Hornby, 2006: 110*). Although this model of TC applies to literary texts, it can also be used according to non-fiction.

All of these available models of TC require a talented and experienced critic, who also needs to be a translator. In this process, however, the critic is not focused on translating one text into another. Instead, he is “confronted with ... two *completed communication situations*” (*Valero, 1995*), so he is simultaneously the receiver of the ST and TT. Both of these texts are sometimes referred to as LC1 and LC2. The Translation Critic needs to use the right methods in order to establish both texts’ functions, culture and coherence. This task can be fulfilled by analysing LC1 and LC2 separately and comparing them in the end. Valero (1995) also highlights the role of two important factors of TC: the Translation Initiator (TI) and the Translation Operator (TO). Both of them have a great impact on the effect of translation, but it is the Translation Critic who has to deal with “unpleasant problems” (*Valero, 1995*). His task is not to indicate possible differences between ST and TT, but to assess the translation’s coherence and to be objective in this process. The TC is still a field that needs more research, and the existence of “numerous and diverse criteria and approaches offers a challenge to contemporary critics, readers and translators” (*Maier, 2009: 240*).

The Theory of Scenes and Frames

The theory of scenes and frames has a close connection with the topic of TC, for it was an inspiration for further research of scholars such as M. Ammann. The theory was proposed by an American linguist - Charles J. Fillmore. The scenes and frames approach is based on perceiving the translation process as “a complex act of communication involving interaction between the author of the source text, the translator as both source text reader and target text author, and then the reader of the source text” (*Snell-Hornby, 2006: 110*). Particular elements of the translation process can be described as frames. The ST, which is a starting point for the translator, is a frame itself, but also its linguistic components can be called frames. The notion of frames is explained by Ch. J. Fillmore on an example of a child, who learns new words in

particular situations. When a child hears the word “pencil”, it may associate it with a particular experience, for example his mother drawing circles with a pencil. Followingly, a child “becomes able to identify and label isolable parts of such an experience – the pencil, the paper, the act of drawing, etc” (Fillmore, 1977: 62). As the child starts to recognize the names of all of these associated elements, it is already familiarized with complete frames for different experiences consociated with a pencil. Fillmore decided “to use the word frame for referring to any system of linguistic choices (the easiest cases being collections of words, but also including choices of grammatical rules or grammatical categories – that can get associated with prototypical instances of scenes)” (Fillmore, 1977: 63).

Scenes, however, are being built by the translator. Depending on his “personal experience” and “knowledge of the source language and culture” (Snell-Hornby, 2006: 110) the effects may vary – the translation may be a bit different, for example in the context of the ST author’s intentions. The scenes are activated by the translator and the next step is to “find suitable frames in the target language” (Snell-Hornby, 2006: 110). According to Ch. J. Fillmore, a scene may “include not only visual scenes but familiar kinds of interpersonal transactions, standard scenarios, familiar layouts ... and, in general, any kind of coherent segment large or small, of human beliefs, actions, experiences or imaginings” (Fillmore, 1977: 63).

According to Ch. J. Fillmore, the understanding of the frame is usually subordinate to the perspective. A good example can be a description of a commercial action, where different activities can be observed. Depending on the point of view, one of these activities can be registered in a particular sentence and others may not. For example in the phrase: “*John bought the sandwich from Henry for three dollars*” the perspective is much different than in a phrase: “*Henry sold John the sandwich for three dollars*” (Fillmore, 1977: 59). In this case, frames “presuppose a fairly complete understanding of the nature of the total transaction or activity” and “determine a particular perspectival anchoring among the entities involved in the activity” (Fillmore, 1977: 59). What is more, the scenes-and-frames approach is focused on distinguishing different “levels of conceptual frameworks for events: the one giving a general representation of all of the essential aspects of events of a particular category; and the other giving the particular perspective on an event of the type dictated by a case frame” (Fillmore, 1977: 59). This is why the scenes-and-frames theory is so closely connected with the notion of TC. The idea of TC is indeed to analyse and compare the holistic approach to ST and TT and the process of translation. The scheme suggested by Ch. J. Fillmore is a helpful tool to understand the overall nature of both texts.

Linguistic Coherence and Translation Criticism

As S. Blum-Kulka claims, coherence “can be viewed as a covert potential meaning relationship among parts of a text, made overt by the reader or listener through processes of interpretation” (Blum-Kulka, 2004: 298-299). Obviously, linguistic coherence is then a translator’s target and a great measure of the translation effects. “The more cohesive, the more formalised a text, the more information it, as a unit, affords the translator” (Newmark, 1988: 55). Translator’s work, however, is strongly connected with maintaining coherence too. The meaning is the most important element that has to be conveyed by the translator, but whether ST and TT are coherent is the effect of translator’s or interpreter’s efforts.

Coherence is also equated with “the text’s interpretability” (Blum-Kulka, 2004: 304), which is the main point of TC. According to Blum-Kulka (2004), coherence can be divided

into the reader-focused and the text-focused approaches, and the second one is more concerned on the process of translation. “Text-based shifts of coherence often occur as a result of particular choices made by a specific translator, choices that indicate a lack of awareness on the translator’s part of the SL’s text meaning potential” (Blum-Kulka, 2004: 309). These choices, earlier equated with moves in the game, are translator’s actions that are analysed in the TC process. The way the meaning of ST has been conveyed to TT is one of the most important elements examined by a translation critic, and coherence is a great measure of achieving this important goal.

Conclusions and suggestions

Translation criticism is a field of translation studies that has been discovered, yet it is not widely examined. The task of TC is to make an analysis and an assessment of the product of the translation process providing for comparing ST and TT, their goals, methods used and translator’s input. TC should be taken seriously, indeed, for it is a great way of examining how accurate the translation is.

Understanding the notion and main principles of TC is easier with the knowledge of the scenes-and-frames theory, which has been developed by an American linguist – Charles J. Fillmore. According to this approach both ST and TT with their elements can be divided into scenes and frames, which are helpful in understanding their nature and comparing them within the TC process.

Although there are different proposed ways of applying TC, all of them can become a very helpful tool in improving the process of translation and translation studies in general. As coherence is a goal of every translator, TC should be applied as often as possible. Developing this field of translation studies is a good way to amend the translation process in general.

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INTERSEMIOTIC TRANSLATION AS A METHOD OF TEACHING ENGLISH TO MENTALLY HANDICAPPED STUDENTS

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Abstract. The article is focused on the problem of intersemiotic interpretation as a method of teaching English to mentally handicapped students. It also substantiates the objective necessity that a skilled teacher should be very flexible and methodologically well-prepared for teaching English as a foreign language to such special students, using different methods tailored to their individual needs. The authors claim that working with students with special educational needs is a constant search for new forms and methods of work. It's proved that while discussing literary texts that are especially difficult for mentally handicapped students, lessons should be based on students' creative activity, which leads to positive effects and provides children with new stimuli for quick reactions and critical thinking. The authors define that in intersemiotic translation the most valuable are activities of students, which allow to translate a literary text into a special text intended for recitation, radio, television, theater, when students have to do many analytical activities: to determine the place of events, to extract heroes, to choose fragments of the narrative, to transform text fragments into dialogues, to make a cast, to match the background music and acoustic effects.

Keywords: intersemiotic translation, intellectual disability, mentally handicapped students teaching methods.

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Introduction

Teaching English to children with intellectual disabilities is not easy. The authors have been in contact with such young people for 20 years. Every student is different, every student needs individualization of work. Such children usually learn slower and to remember foreign words they require more affords and more time. Learning difficulties are also connected with specific logical thinking, concentration of attention and the possibility of information processing. Many children came from families with poor parenting skills, so the above learning difficulties are accompanied by emotional disorders that affect the student's disposition on a given day. Every day a teacher has to balance these aspects and thus reduces her demands towards the child. It is very easy for such students to be discouraged from learning. This will cause them to suffer from self-esteem, which is often already impaired for other reasons. The teacher must be able to raise the demands in such a way as not to discourage his children, but to mobilize them. He also should pay attention to bright students, but do not forget about weak ones. The article describes methodological peculiarities of using intersemiotic interpretation in teaching English to students with mild mental disability who study in a special school in Czestochowa, Poland. According to the authors' deep

consideration children with intellectual disabilities, for sure, can and should participate in foreign language lessons together with all other students.

Intersemiotic Translation: Definition

Contemporary methods of communication use much information transmission codes linked in different ways. This requires the ability to receive them and translate the characters of one code into another properly. Intersemiotic translation allows you to express thoughts and feelings related to the correct understanding a literary work. There are many definitions of this notion.

"Intersemiotic translation" in its original sense was understood as an interpretation of language signs by means of non-verbal resources. R. Jakobson distinguishes three ways of interpreting verbal signs. The first one is interlingual translation, i.e. translation into other characters of the same language. The second way is interlingual translation when you translate into another language. The last one is intersemiotic translation from one language to another, a non-verbal system of symbols. In case of R. Jakobson, intersemiotic translation concerned only language. In his work he did not discuss translation from one non-verbal semiotic system into another non-verbal semiotic system (*Jakobson 1959:138-143*).

Nowadays, civilizational changes force us to broaden the definition of R. Jakobson's intersemiotic translation, including translations from non-language semiotic resources. According to M. Kaźmierczak, Jakobson's intersemiotic transcription concerns only translation:

- word to dance, e.g. ballets whose libretto comes from the art of word, as in the case of *Anna Karenina* Rodion Szczedrin (1971);
- word to visual arts, such as Jacek Malczewski's *Death of Ellenai* (1907, *National Museum in Krakow*);
- word to music, e.g. Storm, symphonic fantasy op. 18 by Piotr Czajkowski, based on Shakespeare.

So, M. Kaźmierczak extends this scope of intersemiotic translation, including **polysemiotic works**, i.e. screen adaptations of literary works and theatrical adaptations of lyrics that were not originally intended for the stage. This group also comprises verbal and musical works, whose libretto was a transformation of verbal texts, as well as computer games based on literary material (for example, 'The Lord of the Rings'). M. Kaźmierczak also quotes other types of translations, such as: re-coding text into Morse code; translation into tactical Braille; messaging by flag system; transmitting information, prohibitions, instructions, warnings behind indirect pictograms; replacing the verbal text with graphic (punctuation) signs as a manifestation of conceptual translation (*Kaźmierczak 2017: 7-35*).

Intersemiotic Interpretation as a Method of Teaching English

According A. Dyduchowa there are other forms of social communication beside language. Therefore, in order to prepare a young person to make contact with the surrounding world, it is necessary to equip him/her with the ability to translate one sign into another. This assumption is the basis of intersemiotic translation.

Intersemiotic interpretation is a translation from one system of signs to another, for example, for plastic expression (drawing, sculpture), movement (gesture, drama) or sound.

In the initial stage of learning language skills, a teacher goes from a picture that supports exercises to speaking and writing. Then (in older classes) a substitute speech code which is the line, timbre, shape, sound is introduced. The next step is to teach them 'coding'. The structure of didactic activities in case of analyzing, for example, a picture may take the following shape:

- observation of a work of art: discussion of its content and form with the introduction of language exercises during which children read and verify the meaning of color, shape, dynamics, texture, etc.;
- language exercises in the verbalization of sensations, emotions, evaluation of the work, etc.;
- editing the description of the work (*Dyduchowa 1988: 35-42*).

Our observations allow to sum up that translation of a literary text into plastic characters, e.g. drawing, provokes artistic expression. When describing a picture, one should go beyond what is painted and take into account the cause and time relationships that are not visible in the registered iconic characters.

By the way, one shouldn't forget, that natural activity of a child is fun, so it is worth using it in school activities and link it with foreign words. Staging events from life, playing different roles, mime games, and drama games, for sure, will improve your students' language skills. The translation method in a such form creates an opportunity to develop "creative aspects" of language at the level of its colloquial usage. In this case of intersemiotic translation, A. Dyduchowa proposes the following ways of conduct:

- 1) non-verbal activities of the student (e.g., a thematic mime game: e.g. a situation imitating a situation imagined by the pupils);
- 2) including verbal elements in the game (e.g. recognition of the scene by the audience and attempts to translate the language of gestures into the language of words, faithful description of the scene, interpretation in which elements of fantasy may appear, proposals to enrich the realizations, proposals for dialogues);
- 3) exercises improving the language layer of the game (*Dyduchowa 1988: 44-48*).

Though this method of translation creates an opportunity to develop the "creative aspects" of language, as it was already mentioned, and at the same time, it can be seen as a paradoxical phenomenon. Language, considered to be a tool of communication, often serves a means to avoid misunderstanding when a word is replaced by mimic, gestural, musical expressions, etc. An introduction of actions in the form of staging, drama or drawing is an intermediate link between a literary text and a student's statement (analytical or interpretive). In such a conceived process, the teacher should do the following:

- 1) make a student familiar with the text (by reading);
- 2) encourage individual or team efforts by students to translate the text into another sign system. This leads to a non-verbal analysis of the text. What is difficult to put into words can be expressed by gestures, facial expressions, lines, colours, acoustic effects, etc. The child can also express what is difficult to put into words;
- 3) introduce verbal exercises, thanks to which a student can talk about his or her work. In this way he/she indirectly interprets the work (pronounces the conclusions gathered during the translation activities). These are simply spontaneous statements that enable the development of creative linguistic expression and active vocabulary.

In intersemiotic translation the most valuable are activities of students, which allow to translate a literary text into a text intended for recitation, radio, television, theater, etc. During the preparation of, for example, a radio drama scenario (based on a literary text) the student

has to do many analytical activities: to determine the place of events, to extract heroes, to choose fragments of the narrative, to transform text fragments into dialogues, to make a cast, to match the background music and acoustic effects.

Working on the scenario gives a natural opportunity for language exercises (conversion of narrative into dialogue, changing dependent speech into an independent one, writing a script) and conscious reception of theatrical performances, radio programs, films. Many of the activities require students to work in groups and collective work, which positively affects their emotional, mental and social development.

In accordance with the National Programs for Language Teaching in many countries, the objective of foreign language teaching is the development of students' language skills, which allows them to communicate in different linguistic and cultural environments. The concept of alphabetization, multilingualism and multiculturalism is being actively promoted. Foreign language linguistic assistance takes part in developing students' skills in order to help them cope with reality, communication circumstances, both expected and unexpected. This is done by using a foreign language, paralinguistic or even non-linguistic forms of communication. Illustrations also help, since they facilitate the decoding of linguistic and cultural elements into intersemiotic language. Besides, the Council of Europe also stresses the importance of the contribution of non-verbal communication (practical action, paralinguistic and paratextual characteristics) to language learning. As regards specifically the relationship between text and image, Bezemer and Kress (2009: 249-262) note that *'the relationship between image and writing has remained unchanged over time in English: throughout the 20th century, most images were "subordinate" to writing'*.

Languages of other disciplines are also associated with basic concepts. Today teaching English requires an interdisciplinary approach. In other words, teaching English should be linked to other school subjects such as literature, history, mathematics, geography, etc. In this way, pupils become acquainted with the subject matter of these disciplines. In this case, students learn about these disciplines, they learn both, the language and the science under supervision.

In accordance with the Common European Framework of Reference for languages, 'language competence of a pupil/user in language communication is activated during the performance of various linguistic activities, including acceptance, production, interaction or mediation (in particular interpretation or translation). Each of them should be permitted with regard to texts whether or not they are oral or written, or both. Kourdis and Zafiri (2010: 8 - 13) prove that language, as well as its teaching and learning, develops in time and space. It is both a communication code and a semiotic system and it shows similarities and differences to other linguistic and non-verbal systems with which it interacts.

The method of intersemiotic translation, regardless of its variability, allows to shape the student's speech according to the developmental course of his thought operations. It activates communication channels between the pupils and the teacher. It is not just a question a teacher asking the pupil to answer. Pupils have to communicate in order to do something together, to exchange ideas, to design something. By penetrating into the structure of the text, they activate all their senses, because the text comes alive, releases colours, smells, movement and sound. The child "sees" that the word has many meanings and looks at the text from a different perspective. All these actions are supposed to lead to the last and the most important stage, i.e. the child's free speech. And that is the expected element that determines the effectiveness of intersemiotic translation.

Teaching English to Handicapped Children Using Intersemiotic Interpretation

In Poland and Ukraine the classification of mental retardation (adopted by the World Health Organization on January 1, 1968), is based on a scale of 100 and the standard deviation 16, which divides mental retardation into four levels:

1) **mild mental retardation** which falls between two and three standard deviations, taking the intelligence quotient from 52 to 67;

2) **moderate mental retardation** which defines the area between three and four standard deviations, distinguishing persons with IQ between 36 and 51;

3) **severe mental retardation** which falls between four and five standard deviations, classifying people with an IQ between 20 and 35;

4) **profound mental retardation** is the area between five and more standard deviations, here include people with IQ from 0 to 19 (*Global Health Observatory, 2019*).

People with special educational needs (with **intellectual disability**) are children who need an individual or individualized education and therapy program, special teaching methods and techniques, support and time and place specially adapted to their abilities. In education process of these people, multi-sensory learning is particularly important, i.e. **polysensory learning** and early psychomotor rehabilitation of a child, in order to improve and harmonise the interaction between the child's motor and psyche.

Among mentally handicapped children with the same IQ there is a great diversity in the development of particular orienteering, cognitive, intellectual and executive processes. It is important to recognize that mental impairment, combined with the mismatch between the development of psychophysical functions, has a negative impact on children's schooling and social adaptation. In this situation, it is therefore necessary to apply a special methodology in teaching that:

- would develop the child's activity;
- has a stimulating effect on the development of all analyzers;
- influence the creation of movement, auditory and visual coordination;
- teach social behavior;
- has a tonic effect on the child's nervous system.

Therefore, teachers working with such pupils should be guided by the following principles:

- the individualization of interactions;
- a rule of thumb to ensure that your child feels safe;
- subjectivities;
- taking into account the non-harmonious development of the child;
- the principle of not overstrain the child;
- the principle of gradation of difficulty;
- the principle of repetition and fixation of activities;
- the principle of inducing motivation.

This methodology was implemented in the Special School in Częstochowa. The aim of the project was to use the method of intersemiotic translation as a method of teaching English how to support students with intellectual disability. We try to use this method during my English lessons once a year. The project presented in the article took place in the 2017/2018 school year. First and second classes of the Special Trade School for students with a mild

handicap participate in this project on their lessons and school English Club's activities. There were about 20 students (both boys and girls) involved in the realization of the plan.

The main aim of using the method of intersemiotic translation in English lessons was consolidation and enrichment of vocabulary of the English language skills, and thus increasing language skills among students (writing and speaking in English) and developing interests, artistic and acting skills of the students.

The specific objectives can be listed in the following way:

- increasing motivation to learn English by involving students in the preparation of the performance;
- developing creative thinking and acting skills;
- shaping students' openness and curiosity towards other nationalities and cultures;
- striving to break the so-called "language barrier" when speaking; shaping students' ability to work independently;
- contact with art through active participation in this type of performance;
- strengthening confidence in one's own strength and language skills;
- gaining freedom in dialogue and role-playing; acquiring the ability to work with the method of intersemiotic translation.

Educational goals are to be achieved by:

- sensitization to the beauty and promotion of the culture;
- preparation for a conscious reception the literature;
- creating a positive attitude towards learning a foreign language through the play;
- implementing participation in school life;
- teaching proper relations and actions for the benefit of others;
- learning how to cooperate in a group while performing acting tasks; active spending of free time.

All students of the researched classes have a mild impairment, but their individual possibilities are very diverse. Taking into account, for example, the ability to read, we found out that:

- two students read fluently and with understanding (provided that it is a short text);
- four students have a good command of reading technique, but their reading is without understanding (even if it is a short text);
- other students show difficulties already at the level of reading;
- all students have more or less difficulty in reading in English.

As a result, almost all literary texts are difficult to perceive for these pupils. While working on "The Little Red Riding Hood", we chose reading and analyzing the simplified version of the text, both in Polish and English.

In the first script, in accordance with the rules of intersemiotic translation, we encouraged students to present a fragment of the tale they had read in the form of a picture story. Our proposal was met with great approval among the students, as they like to do various kinds of artwork. Analyzing the students' creative pictures, we were able to assess how they perceived and understood a literary text they had read. It was also a great opportunity to develop their language skills, because the students had to express their opinions on their works, both verbally and in writing. As a rule, they do not like to express their opinions on the text they read, but in this case, through the use of intersemiotic translation, they were eager to talk about what they had drowned.



While characterizing the main characters of the work, I consciously chose this fairy tale and these characters. It is known to students. The characters of the Wolf and the Hood are built by the authors on the basis of contrast. I used this fact to practice the ability to create words of opposite meaning. I used drawing again. When children create artwork, they open up and often "think loudly". Then they freely express their feelings and reflections, which is difficult to achieve by asking questions like the teacher asks - the student answers. When they started the work, the pupils themselves chose the character they would draw.

These are some exemplary works of the students. The pictures show a positive heroine - Hood, and the Wolf, a negative character.



The biggest difficulty for my students was to write the characteristics of one of the characters in English (homework). Here the following problems occurred: lack of consistency of the text, poor vocabulary, numerous mistakes, incompetent use of translators.

The students were most impressed by the preparation of the play for a funny English performance. They showed great discipline and concentration of attention, with which they usually have huge problems. Thanks to the fact that we recorded their performance and then reviewed them, students were aware of their mistakes. Therefore, they tried to speak loudly, clearly, modulate their voices, be aware of punctuation marks. This exercise turned out to be a great form of speech therapy. There were no more problems with discussing the effects of working together. The children were very eager to express themselves, they said what they thought could work out better, what they liked the most.

They immediately expressed their readiness to prepare next performance or the radio audience. There are some photographs of students' performance: Little Red Riding Hood. The actors are students from Special School in Czestochowa.



Conclusions and suggestions

The method of intersemiotic translation allows a teacher to achieve great effects in teaching English as a foreign language working with handicapped children. Among them are: it activates imagination and creative activity of such students, develops their focus of attention, inspires the spontaneity of the students' statements, develops auditory analysis and synthesis, improves students' visual and motor coordination, develops literacy, allows a teacher to assimilate a literary text, integrates the classroom team.

So, to sum it up, intersemiotic translation is an effective way "to unlock" students with deficits. Thanks to the concretization of a literary text, it supports the didactic process. It also prevents monotony in the classroom and involves all students in solving the problem. This method also strengthens self-esteem and teaches self-reliance. Its inclusion to the teaching process and educational work requires the teacher's involvement and knowledge of the abilities of such special pupils. However, it is worthwhile to put this effort into enjoying the overall development of the students.

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MEDICAL SCIENCES

POTENTIOMETRIC DETERMINATION OF THE ANTIOXIDANT ACTIVITY OF MEDICINAL PLANTS

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Abstract. The article deals with the analysis of the existing methods of investigating the antioxidant activity of plants' origin and the expediency of measuring oxidation-reduction potential for this purpose. The integral AOA of alcohol extracts *Urtica dioica*, *Trifolium pretense*, *Chelidonium majus*, *Hippophae rhamnoides* has been determined by potentiometric method using the mediator system. It was established that the leaves of sea – buckthorn are characterised by the highest antioxidant activity (2.05 ± 0.1 mg AA / ml). The AOA of plants *Urtica dioica*, *Chelidonium majus*, that were growing along the transport zone is higher by 23,1-27,9% comparing with the plants collected from environmentally friendly area. It was found out that the plants of *Hippophae rhamnoides* L. coriander were adapted to oil pollution, as evidenced by the absence of a significant difference between AOA of plants collected from environmentally friendly area comparing with the plants that were growing on the soil polluted with petroleum products.

Keywords: antioxidants, medicinal plants, potentiometric method, integral antioxidant activity.

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Introduction

It is believed that the accumulation of free radicals in the human body is one of the main reasons for the develop of such serious diseases as malignant neoplasms, chronic inflammatory processes, diabetes mellitus, neurological pathologies, atherosclerosis, ischemic heart disease, heart attack, stroke (Khan, 2012). The concentration growth of free radicals

increases as a result of radiation, UV radiation, smoking, alcoholism, constant stress, infectious diseases, improper nutrition, as well as due to the decrease in the activity of the natural antioxidant system of humans.

Problems of chemical regulation of oxidative stress and the search for biologically active substances that possess an antioxidant activity (AOA) have become the subject of many investigations (Zenkov *et al.*, 2001). The best sources of antioxidants are plants, in particular the medicinal ones, due to their content of biologically active substances – phenolic compounds (flavonoids, flavonols, catechins, etc.), vitamins (C, E), carotenes, minerals (Papastergiadis *et al.*, 2012). Natural antioxidants, as a rule, suppress the reaction of free radical oxidation by binding free radicals and the formation of stable chemical compounds, thereby creating optimal conditions for metabolism and ensuring the normal growth of cells and tissues.

Methods of the research of total antioxidant capacity (TAC) differ in type of source of oxidation, oxidizing compound and method of measuring its concentration (Polumbryk *et al.*, 2016). Methods of measuring antioxidant activity are divided, depending on the form of registration, on the methods of optical spectrometry (fluorimetric, chemiluminescent, photocolormetric, spectral), electrochemical (amperometric, voltamperometric, potentiometric), specific – chromatographic, titrimetric, biochemical analysis, electronic paramagnetic resonance (EPR), EPR with spin traps, mass spectrometry, etc. All methods have advantages and disadvantages (Amorati *et al.*, 2015).

The most numerous methods and modifications of the methods mentioned in the literature, use photometric registration, perhaps, as the most convenient and accessible. In particular, there are common methods which are based on the overall reduction effect of individual low molecular weight antioxidants by color change relative to the standard compound, which is a water soluble analogue of vitamin E – Trolox (Harasym *et al.*, 2014; Lucio *et al.*, 2009). Antioxidant activity in brain tissues was investigated with Trolox as an equivalent (and named TEAC - trolox equivalent antioxidant capacity) (Chatterjee *et al.*, 2005).

Also, a method for oxidizing deoxyribose in a radical system is described in the literature sources (Choi *et al.*, 2014). Another photometric method is based on photocolormetry of iron-thiocyanate complexes (Nilsson J. *et al.*, 2006). The classical methods for evaluating the antioxidant activity of natural compounds are the study of the kinetics and their interaction with stable radicals, in particular, 2,2-diphenyl-1-pyrylhydrazil DPPH) and 2,4,6-triphenyl-verdazyl (TPV) (Choi *et al.*, 2014).

AOA can be estimated by inhibition of the accumulation of finite molecular products of free radical oxidation, in particular malonic dialdehyde. The interaction with 2-thiobarbituric acid with the formation of a colored complex is used for its quantitative determination (Papastergiadis *et al.*, 2012).

Recently, a significant role of active forms of nitrogen oxide NO has been noted in the pathology of various diseases, for example, ischemia (Zhang *et al.*, 2015). The reaction of inhibition of the forming active forms of nitrogen oxide is used to evaluate the antioxidant properties of the compounds with the help of ascorbic acid by measuring the optic density (Toth *et al.*, 2002).

Nowadays, one of the most widely used methods is the method of determining adsorption capacity in relation to oxygen-containing radicals ORAC (oxygen radical absorption capacity) (Martin I. *et al.*, 2009). This method is based on measuring the fluorescence intensity of a certain compound (more often fluorescein) and its change from the

duration of the reaction. In the presence of compounds that bind oxygen-containing radicals, the time of fluorescence increases as a result of the protective effect of antioxidants (*Amorati et al., 2015*).

In the research work (*Trindade et al., 2016*) has been proposed a quick method of evaluating the antioxidant activity of fruit and vegetable extracts directly in living mammalian cells. It consists in the use of oxidation of 2', 7'-dichlorofluorescein acetate (DCFH-DA) (indicator of reactive compounds of oxygen) for determination of pro- and antioxidant capacity of the individual compounds as well as fruits and vegetables (*Trindade et al., 2016*). Several methods have been used to determine the content of phenolic compounds and (+) - catechins in various types of chocolate (18 samples) (*Hu et al., 2016*). Most of the chocolate polyphenols belong to the class of flavonoids, which determine the high antioxidant activity of chocolate as compared with black and green tea, as well as red wine.

Accordingly, the most common methods are such as TEAC (trolox equivalent antioxidant capacity), total radical trapping antioxidant (TRTAP), FRAP (ferric reducing antioxidant power), etc., based on the reaction of the reduction of long-lived free radicals or the Fe(III) complex.

The main defect of these methods is the fact that antioxidant activity is considered in them as a function of many parameters (in particular, time, temperature, nature of substance, concentration of antioxidant and other compounds); during the implementation of these methods, synthetic free radicals are used, which have nothing in common with free radicals in the human body (*Polumbryk et al., 2016*).

The interaction of antioxidants with free radicals and active forms of oxygen in the aqueous medium is accompanied by the passing of an electron, and, consequently, has an electrochemical nature. Therefore, for the purpose of determining the integral antioxidant activity of plant material, it is advisable to use potentiometric methods that are characterized by high sensitivity, simplicity of execution, informative and affordable value (*Sharafutdynova et al., 2004*).

The purpose of the study was to explore the antioxidant peculiarities of the medicinal plants of common *Urtica dioica*, *Trifolium pratense*, *Chelidonium majus*, *Hippophae rhamnoides* by potentiometric method.

Materials and methods of the research

The testing materials was the following: grass of the common *C. majus*, the leaves of *H. rhamnoides*, *U. dioica*, the grass of the meadow clover *T. pratense*, which grew on provisionally clean area along the transport zone and ozokerite dumps. Leaves and herbs were harvested during mass flowering. *U. dioica* and *T. pratense* were harvested in June – July, *C. majus* – in May, *H. rhamnoides* – in early August. Flowering tops of 10-15 cm in length were cut in dry *T. pratense* weather in the morning after dew dropping. Desiccation was carried out in shaded areas with good ventilation at a temperature of 40 – 60 °C. The *C. majus* grass was dried quickly to prevent alkaloids and other physiologically active substances from disclosing. The first day's desiccation, were carried out in the sun and then continued in the dryer at a temperature of 55 – 60 °C.

For further research, vegetative material was ground on a laboratory mill at 1000 rpm. to linear sizes of 5 mm in accordance with the requirements of the State Pharmacopoeia of Ukraine (SFU) (*Pharmacopoeia, 2008*).

Alcohol extractors were prepared using 70% alcohol in the ratio of 1:10 and further infusion for 14 days. After this, the extract was drained through a five-layer sterile gauze, the remaining raw material was pressed, washed with a small amount of extractant, again pressed and extracted with a filtered extract to the required volume.

The potentiometric method using the mediator system (Lupak *et al.*, 2017) was carried out by the determination of AOA (Lupak *et al.*, 2017), modifying the methods of Braine and co-workers (Brainina *et al.*, 2004) and Aronbayev and co-work (Aronbaev *et al.*, 2015). To measure the oxidation-reduction potential (ORP), the pH-150MI brand was used. A platinum electrode of the brand EPL-02 was used as an indicator, and the chlorine silver electrode of the mark EVL-1M3.1, filled with potassium chloride solvent with a concentration of 3 mol / dm³ as a comparison electrode.

The mediator system consisted of solvents of K3 [Fe (CN) 6] and K4 [Fe (CN) 6] in phosphate buffer at pH 7,2 (Brainina *et al.*, 2004). Initially, the potential of the platinum indicator electrode in the mediator system was measured. The extract of 0.2 ml of the test solution was mixed with 10 ml of the mediator to determine the AOA. After determining the equilibrium, the potential of the platinum indicator electrode was determined in the resulting mixture.

As a standard, AOA used freshly prepared alcoholic solutions of ascorbic acid (AA) at a concentration of 1, 2, 4 mg / ml in order to calibrate them for further investigation of the alcoholic extracts of the examined medicinal plant material (Lupak *et al.*, 2017). Recalculation of AOA was done relative to the concentration of AA, because it is a known antioxidant.

In order to calculate the AOA, a calibration graph of the dependence of the difference in the potential of the mediator system before and after adding of a solvent of AA from the concentration logarithm AA in the initial standard solution for the alcoholic solvent AA was constructed (Fig. 1). The calibration was carried out for each subsequent series of extracts.

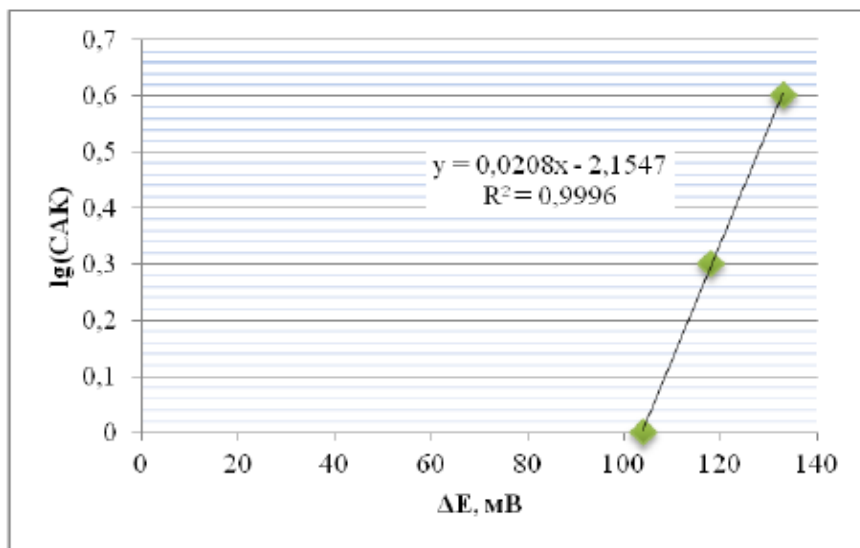


Fig.1 Calibration graph of the mediator system dependence for determination of AOA alcoholic solution of AA

The quantity of the antioxidant activity of AOAx were calculated for the investigated extracts, according to the general formula for the obtained gauge dependencies (2):

$$\lg[C(AA)] = A \cdot \Delta E + B, \quad (1)$$

where A, B – coefficients of gauge dependencies, according to the least squares method, which is implemented in Microsoft Office Excel table processor; ΔE is the difference between the ORP of the mediator system before and after adding a solvent in which the AOA was measured.

Thus, AOAx in units of concentration of AA (mg / ml) in the extract was determined by the formula (2):

$$AOA_x = 10^{\lg[C(AA)]}, [\text{mg AA/ ml}] \quad (2).$$

Statistical data was processed using Microsoft Office Excel, the dissimilarity between the samples were considered reliable at $p \leq 0.05$.

Results of the research and their discussion

In the result of extracts investigation of the grass of *C. majus*, leaves of *U. dioica*, *H. rhamnoides*, grass of *T. pratense*, it was found that the largest AOA is characterized by extracts of *H. rhamnoides* leaves (Table 1).

Table 1

AOA characteristics of alcoholic extract of plant material

($M \pm m$, $n=5$)

Title of raw materials	Potential difference, (ΔE), mB	lgC(AA)	AOA, mg AA / ml
Leaves <i>Urtica dioica</i>	110,7	0,15	1,41 \pm 0,06
Grass <i>Trifolium pratense</i>	109,2	0,12	1,31 \pm 0,07
Grass <i>Chelidonium majus</i>	109,7	0,13	1,34 \pm 0,06
Leaves <i>Hippophae rhamnoides</i>	118,6	0,31	2,05 \pm 0,1

The AOA quantity of *H. rhamnoides* leaf extract is 2.05 ± 0.1 mg of AA / ml, which is significantly higher ($p < 0.01$) than AOA extracts of other investigated plants (by 45.4 – 56.5%).

The consequence of anthropogenic activity is environment pollution, including soils. It is known that technogenically polluted soils cause significant changes in the activity of the antioxidant plant system. In particular, along the roads where traffic is intense, with the exhaust gases of cars, a lot of the most widespread and most dangerous pollutants (environmental pollutants) such as – cadmium and plumbum gets to the soil surface. In this case, the mechanisms of adaptation to their toxic effects, which consist in the activity growth of some enzymes, in particular catalase, peroxidase, elevated polyphenol synthesis, ascorbic acid and enzymes of its metabolism are activated in plants.

In order to study the influence of soil pollution on the antioxidant state system of plants, AOA alcoholic extract of grass *C. majus* and *U. dioica* leaves, which grew on conditionally clean territory and along the transport zone were determined. It was found that

AOA was significantly higher ($p < 0,05$, $t = 3,10$) above 23,1% in extracts of grass *C. majus*, collected from a technogenically polluted area for the extracts of *U. dioica* leaves, a similar pattern was observed: AOA was significantly lower ($p < 0,05$, $t = 2,72$) above 21,9% in extracts of plants collected on a conditionally clean area (Table 2).

Table 2

AOA characteristics of herbs extractors *C. majus* and *U. dioica* depending on their growth conditions

(M ± m, n = 5)

Raw materials growth place	AOA <i>C. majus</i> , mg AA / ml	AOA <i>U. dioica</i> , mg AA / ml
Conditionally clean area	1,34±0,06	1,41±0,07
Along the transport lane	1,65±0,08	1,72±0,09

Consequently, AOA grasses *C. majus* and *U. dioica* leaves grow in conditions of anthropogenic loading on the soils where they grow on.

It is known from the literary sources that the sea-buckthorn improves the soil, due to its ability to form a powerful forest litter, enriched with nitrogen, phosphorus, potassium and organic matter. The root system of the plant is capable of symbiosis with microorganisms of the soil, which results in successful overgrown areas contaminated with oil in the process of phytoremediation. Excess heavy metals in oil-contaminated soils accumulate a little in plants of sea-buckthorn during long-term growth on these soils. Under such conditions, the protection mechanisms of sea buckthorn are launched, as a result of which the physiological adaptation of plants develops and they can withstand stressful influences (*Shevchyk et al., 2017*).

Taking into account these data, AOA in the leaves extracts of sea-buckthorn, which contains a lot of antioxidants that react quickly to stress factors, was investigated.

The raw material of plants growing on conditionally clean territory and on ozokerite dumps (on soils contaminated with oil) was selected for the research. Analyses results showed that the difference between the AOA extracts of plants collected on a relatively clean and contaminated oil territory was not significant (Table 3).

Table 3

AOA characteristics leaves hood of *Hippophae rhamnoides* depending on conditions of their growth

(M ± m, n = 5)

Raw materials growth area	Potential differences, (ΔE), mB	lgC(AA)	AOA, mg AA / ml
Conditionally clean area	118,6	0,31	2,05±0,1
Ozokerite dumps	116,9	0,26	1,89±0,09

The obtained results confirm the data of literary sources about the ability of *H. rhamnoides* adaptations to oil pollution in the conditions of long-term influence.

Conclusions

1. The integral antioxidant activity of alcoholic extracts of *U. dioica*, *T. pretense*, *C. majus*, *H. rhamnoides* was determined by potentiometric method and found to be within the range of $1.31 \pm 0.07 - 2.05 \pm 0.1$ mg AA / ml.

2. It was established that the highest antioxidant activity (2.05 ± 0.1 mg AA / ml) are characterized by extracts of *H. rhamnoides* leaves.

3. It was shown that the antioxidant activity of alcohol extracts of *C. majus* herb and the leaves of *U. dioica*, which grew along the transport lane, was higher by 23.1 – 27.9% as compared with the plants collected from an environmentally friendly area. This indicates changes in the antioxidant system activity of plants as a result of the oxidative stress caused by heavy metals that accumulate from the exhaust gases of transport.

4. It was found that there is no reliable difference between AOA alcohol extracts of *H. rhamnoides* leaf, collected from environmentally friendly and areas polluted with oil, which is proof of adaptation of the plant to oil pollution in the conditions of long-term influence.

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CARE FOR A PATIENT WITH DEPRESSION

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Abstract. It is important to run a family therapy alongside treatment of a patient with depression. The patient's family commits quite a frequent mistake of treating depression complaints as a manifestation of laziness, fatigue and ill will. There are two stages in education. In the first one, the essence of depression to the patient and his family is explained. The second stage of education is to draw attention to the mental and social sphere of the patient. This stage consists of two phases: psychological and social. Therapeutic communication is a specific form of communication. Help is directed to people who cannot make order in their own emotions, thoughts and perceive correctly the surrounding reality. The purpose of communication is also to facilitate the patient's expression of emotions. Therefore, therapeutic communication of a healing nature is the basis for helping mentally ill patients. Suicide is usually committed on impulse in the first, acute phase of depression or after entering the latent phase. Suicide is now considered a multidimensional phenomenon, resulting from the complex interaction of biological, psychological, sociological and environmental factors. The psychological state of people with suicidal tendencies is characterized by three characteristics: ambivalence, impulsiveness, stiffness. Suicide in children and adolescents is of the utmost importance

Keywords: depression, education, communication, suicide.

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Edukacja rodziny chorego

Początkowymi objawami depresji jest znużenie, smutek, rezygnacja, przewlekłe zmęczenie lub zniechęcanie do życia. Pojawiają się również zbyt częste rozmyślenia o przeszłości i niepewność co do przyszłości. Po pewnym czasie osoba chora w ogóle nie jest w stanie odczuwać pozytywnych emocji takich jak szczęście czy radość jak również utrata poczucia własnej wartości. Może występować również spowolnienie lokomocyjne, zaburzenia snu, stany lekowe a nawet myśli samobójcze (Szczygiel, Wanot, Magerčiaková, 2018). Najskuteczniejszą metodą leczenia jest połączenie psychoterapii i leczenia farmakologicznego. Można wyróżnić terapię poznawczą, interpersonalną oraz psychodynamiczną. Jej rodzaj należy ściśle dostosować do stanu i poziomu zaburzeń

pacjenta. Leki przeciwdepresyjne dzieli się na leki starej generacji czyli inhibitory enzymu monoaminooksydazy (MAO), leki hamujące wychwyt zwrotny neuromediatorów oraz trójpierścieniowe leki przeciwdepresyjne. Do leków nowej generacji zalicza się selektywne inhibitory wychwytu zwrotnego serotoniny i noradrenaliny (SNRI), selektywne inhibitory wychwytu zwrotnego serotoniny (SSRI), selektywne odwracalne inhibitory MAO, inhibitory wychwytu noradrenaliny jak również leki czteropierścieniowe (*Wanot, Szczygiel, Wanot, Magerčiaková, 2019*). Ważne jest aby równolegle z leczeniem pacjenta chorego na depresję prowadzić terapię jego rodziny. Choroby afektywne w miarę czasu trwania powodują u 50% chorych zaburzenia przystosowania społecznego. Zaburzenia przystosowania społecznego oznaczają mniejsze zainteresowanie pracą zawodową, mniejszą wydajność, częstą zmianę pracy, niższy poziom osiągnięć zawodowych, niższy status materialny. Wśród chorych jest wyższy wskaźnik rozwodów, częściej są skłóceni ze środowiskiem rodzinnym. Istnieją dowody na to, że zarówno w manii, jak i w depresji może dojść do nadużywania alkoholu. Ocenia się, że 20-60% populacji chorych na zaburzenia afektywne nadużywa alkoholu lub uzależnia się od niego.

Rodzina chorego popełnia dość częsty błąd traktowania skarg depresyjnych jako przejawu lenistwa, zmęczenia i złej woli. Pierwotna chęć pomocy, wyrażana przez najbliższe otoczenie, wobec „niewdzięczności” chorego i uporczywości objawów prowadzi do zniechęcenia. Ujawnianie myśli samobójcze mogą przerażać członków rodziny. Bezsensowność chorego i zmiana nastroju stanowią powód do wyczerpania się psychicznego rodziny i oscylowania między nadzieją a rozpaczą (*Ugniewska, 1998*). Pacjenci jak również rodzina, wykazują dużą niewiedzę dotyczącą jednostki chorobowej, postępowania oraz zajmowania się chorym. W tym procesie bardzo ważna jest edukacja. Wyróżnia się dwa etapy w edukacji. W pierwszym z nich należy wytłumaczyć choremu i jego rodzinie istotę depresji. Wyjaśnienie przyczyn depresji, w jaki sposób ona się manifestuje, zwrócenie uwagi na niebezpieczeństwa jakie niesie za sobą oraz jakie mogą być skutki nieleczzonej depresji. Ten etap to dostarczanie dla pacjentów broszur czy ulotek dotyczących depresji, gdzie mogą znaleźć wszystkie potrzebne informacje na temat choroby. Należy pokazać jak ważna jest samoobserwacja dla chorego oraz obserwacja stanu zdrowia pacjenta prowadzona przez rodzinę. Drugi etap edukacji to zwrócenie uwagi na sferę psychiczną oraz społeczną chorego. Ten etap składa się z dwóch faz: psychicznej i społecznej. Sfera psychiczna to:

- edukowanie pacjenta i jego rodziny w celu nabycia umiejętności radzenia sobie w trudnych sytuacjach;
- aktywizacja rodziny do udzielania wsparcia choremu w jego chorobie i codziennym życiu;
- zwrócenie uwagi na niezbędne systematyczne przyjmowanie leków i stawianie się na wizytach kontrolnych zgodnie z zaleceniami lekarza;
- pokazanie technik radzenia sobie ze stresem;
- na szczególną uwagę zasługuje wykazywanie asertywności w życiu osobistym i zawodowym;
- wytłumaczenie choremu, że nadal pozostaje on tą samą osobą, a choroba nie wpłynęła na jego osobowość.

Sfera społeczna to:

- uczestnictwo pacjenta w życiu społecznym i rodzinnym takie samo, jak przed zachorowaniem. W tym celu należy nadać pacjentowi obowiązki, włączenie do codziennych prac domowych, powrót do pracy zawodowej;

- wytłumaczenie konieczności powrotu do życia towarzyskiego, spotkań z rodziną i znajomymi;
- rozmowa z rodziną chorego o niezbędnej autentyczności i szczerym stosunku do pacjenta oraz potrzebie rozmów z nim;
- wyedukowanie rodziny pacjenta w zakresie komunikacji niewerbalnej, w celu poprawy prawidłowej interpretacji zachowań chorego.

Warto również zwrócić uwagę na złą sytuację rodziny osób po przebytej depresji lub próbie samobójczej. Wstrząs jaki przeszła rodzina po targnięciu się na życie przez jednego z jej członków, zostawia niezwykle traumatyczny ślad, który wymaga profesjonalnej pomocy.

Reakcja rodziny na chorobę kogoś bliskiego ma różne stadia, zawsze jednak jest to sprawa indywidualna, zależna od posiadanej wiedzy, wcześniejszych oczekiwań, wyobrażeń, tolerancji oraz ról, jakie pełnił chory. Formy przyjmowane przez członków rodziny mogą mieć charakter zaprzeczania chorobie, poczucia winy, izolacji, zagubienia, złości, wzajemnego oskarżania się, wstydu przed innymi. Szczególnie zagrażające dla chorego i rodziny są wyrażane przez niego myśli i zachowania samobójcze. Należy zwrócić uwagę rodzinie, że każde podejrzenie o myślach i tendencjach samobójczych powinno być niezwłocznie przekazane lekarzowi lub pielęgniarce. Nie wolno ignorować wypowiedzianych przez chorego myśli o śmierci, beznadziejności życia, nieuleczalności choroby. Ważne, aby uświadomić rodzinie, że samobójstwo może być aktem spontanicznym, nie poprzedzonym żadnymi symptomami. Jeśli chory nie wymaga natychmiastowej hospitalizacji, należy poinformować rodzinę, w jaki sposób może go ochraniać. Będzie to:

- kontrolowanie systematycznego zażywania leków, które skrócą czas trwania depresji, a tym samym zlikwidują myśli samobójcze,
- zapobieganie gromadzeniu i przedawkowaniu leków w celach samobójczych,
- uniemożliwienie dostępu do potencjalnie zagrażających przedmiotów i urządzeń,
- pozwolenie choremu na wypowiedzanie myśli samobójczych bez okazywania szoku, co zmniejszy poczucie osamotnienia, winy i chęci ukarania samego siebie (*Ugniewska, 1998*).

Komunikowanie się z chorym na depresję

Komunikowanie terapeutyczne stanowi specyficzną formę komunikacji. Pomoc kierowana jest do ludzi, którzy nie potrafią samodzielnie dokonać porządku we własnych emocjach, myślach i postrzegać prawidłowo otaczającej rzeczywistości. Celem komunikacji jest także ułatwienie choremu wyrażania emocji względem otaczających go ludzi. Dlatego też komunikacja terapeutyczna o charakterze leczniczym, stanowi podstawę pomagania chorym psychicznie. Wyznacznikami prawidłowego komunikowania się z pacjentem chorym psychicznie jest:

- otwartość;
- akceptacja;
- empatia;
- autentyczność;
- prawość;
- uczciwość;
- integralność;
- odpowiedzialność;
- asertywność;

- celowość;
- samoświadomość.

Do błędów w komunikacji z pacjentem chorym na depresję należą:

- fragmentaryczność informacji;
- podawanie treści informacji w sposób niezrozumiały dla chorego, co może być przyczyną silnego lęku o własne zdrowie;
- niewłaściwa postawa i sposób zachowania podczas przekazywania pacjentowi złej wiadomości, której skutki w negatywny sposób odbiją się na jego stanie psychicznym;
- nakładanie na chorego „na wszelki wypadek” niepotrzebnych ograniczeń, które on interpretuje jako sygnał, że jest z nim niedobrze;
- nieudzielanie informacji lub zbywanie pacjenta ogólnikami prowokuje do szukania pozamedycznych źródeł wiedzy i kształtowania nieprawidłowego obrazu choroby,
- wysyłanie pacjenta na zbędne badania dodatkowe, co prowadzi do nasilenia jego obaw o swój stan zdrowia;
- wszelkie niestosowne zachowanie personelu medycznego wywołujące u pacjenta negatywne emocje.

Podstawowe techniki komunikowania z chorym na depresję:

- dostrzeganie pacjenta i spostrzeganie u niego zmian;
- oferowanie siebie;
- aktywne słuchanie;
- klasyfikacja;
- odzwierciedlenie;
- poświadczenie;
- informowanie;
- wyjaśnienie i uzgadnianie znaczeń;
- identyfikowanie mocnych stron pacjenta;
- milczenie terapeutyczne;
- umożliwienie szerokiego otwarcia: zachęcanie do komunikowania;
- urealnianie i słowne wyrażenie wątpliwości;
- proponowanie współpracy i planowanie;
- parafrazowanie;
- wspieranie;
- interpretowanie;
- podsumowanie;
- budowanie nadziei i pocieszenie (*Motyka, 2003*).

Konieczność stworzenia relacji terapeutycznej z osobami chorymi winna stać się priorytetem w profesjonalnym sprawowaniu opieki nad pacjentem psychiatrycznym. Jest to podstawa terapii dzięki której, chory uczy się nawiązywania poprawnych kontaktów z otoczeniem i poznania swoich słabości. Prawidłowo przeprowadzona relacja terapeutyczna stanowi formę wsparcia dla chorego i umożliwia uzyskanie więzi emocjonalnej niezbędnej do utrzymania prawidłowego kontaktu terapeutycznego. Członkowie zespołu terapeutycznego, rozpoczynając relację terapeutyczną, zdają sobie sprawę, że oba podmioty w tej specyficznej formie kontaktu muszą w niej aktywnie uczestniczyć i wyznaczać kierunek wzajemności tworzącej się więzi (*McKay, Davis, Fanning, Błaż, 2011*). Prawidłowy rozwój relacji terapeutycznych z pacjentem powinien zatem odbywać się poprzez:

– odpowiednio zaplanowany czas na rozmowę w atmosferze spokoju, ciepła poczucia bezpieczeństwa i w sposób nie przerwany przez czynniki zewnętrzne, tj. hałas, czy obecność osób trzecich;

– odpowiednio dobrane tempo rozmowy z pacjentem w zależności od jego stanu psychicznego;

– logiczne i konsekwentne prowadzenie rozmowy z chorym;

– umiejętność dostrzegania i uświadomienia pacjentowi jego wartości, zachęcanie go do wspierania samego siebie poprzez wykorzystanie w tym celu swoich zasobów oraz dawanie mu nadziei na możliwość pozytywnych zmian w przyszłości w jego życiu (*Kępiński, 2002*).

Techniki prawidłowego komunikowania się z osobą chorą na depresję w wieku podeszłym to:

– uważne słuchanie;

– emanowanie spokojem i opanowaniem;

– stwarzanie sytuacji ułatwiających swobodne wyrażanie siebie;

– poszanowanie granic wyznaczonych przez pacjenta;

– jasne i konkretne formułowanie komunikatów;

– dobieranie języka i stylu wypowiedzi zrozumiałych dla starszych osób;

– dostosowanie tempa mówienia do możliwości odbioru osoby starszej;

– zwracanie uwagi na komunikaty werbalne i niewerbalne osób starszych;

– przekazywanie aktualnych informacji bezpośrednio pacjentowi, nie przez osoby trzecie;

– reagowanie na zmiany zachodzące u pacjenta (*Lewko, 2003*).

Należy również pamiętać o tym, iż rodzaj komunikacji zależy od rodzaju zaburzeń zachowania, np. w przypadku agresji wyrozumiałość łagodzi, a odrzucenie nasila zaburzenie zachowania. W przypadku wędrowania należy pamiętać o dostosowaniu otoczenia do chorego, a nie chorego do otoczenia, a w komunikowaniu z pacjentem należy okazać zrozumienie i akceptację (*Kędziora-Kornatowska, Muszalik, 2007*).

Problem samobójstw i samookaleczeń w depresji

Samobójstwo to akt celowego, świadomego odebrania sobie życia. Sytuacja, w której dochodzi do samobójstwa jest trudna do ujęcia w schemat, zazwyczaj składa się na to szereg czynników natury psychologicznej bądź społecznej. Sytuacja ta ma cechy pewnych syndromatycznych zachowań autodestrukcyjnych. Próba popełnienia samobójstwa jest najczęściej poprzedzona zespołem subdepresyjnym. Wiąże się to z zachowaniem pewnej zdolności do działań ruchowych. Samobójstwo popełnia się zazwyczaj pod wpływem impulsu w pierwszej, ostrej fazie depresji albo po przejściu w fazę utajoną. Samobójstwo uważa się obecnie za zjawisko wielowymiarowe, będące wynikiem złożonej interakcji czynników biologicznych, psychologicznych, socjologicznych i środowiskowych. U osób popełniających samobójstwo zwykle stwierdza się więcej niż jedno zaburzenie. Zaburzeniami często współwystępującymi są: alkoholizm, zaburzenia nastroju, zaburzenia osobowości typu „borderline”, czyli potocznie osobowość chwiejna emocjonalnie lub pograniczne zaburzenie osobowości. Różnego rodzaju zaburzenia nastroju mają związek z samobójstwem. Do tego rodzaju zaburzeń należą:

– dwubiegunowa choroba afektywna;

- epizody depresji;
- nawracające zaburzenia depresyjne;
- przewlekłe zaburzenia nastroju; np. cyklotymia, dystymia.

Do cech klinicznych towarzyszących zwiększeniu ryzyka samobójstwa w depresji należy:

- zaniedbanie w wyglądzie i higienie osobistej;
- duże nasilenie zaburzeń psychicznych; szczególnie depresji psychotycznej;
- osłabienie pamięci;
- pobudzenie;
- napady panicznego lęku.

Czynniki zwiększające ryzyko samobójstwa to:

- wiek: poniżej 25 lat oraz powyżej 65 roku życia;
- płeć: mężczyźni częściej samobójstwa dokonane a kobiety próby samobójcze;
- wczesna faza choroby depresyjnej;
- choroby psychiczne występujące w rodzinie;
- przypadki samobójstw lub prób samobójczych występujących w rodzinie;
- faza depresyjna choroby dwubiegunowej;
- stan mieszany: maniakalno-depresyjny;
- mania psychotyczna;
- schizofrenia;
- alkoholizm;
- nadużywanie leków;
- zaburzenia osobowości; zwłaszcza typu borderline oraz zaburzenia osobowości o podłożu antyspołecznym;
- zaburzenia lękowe; paniczny lęk napadowy;
- choroby somatyczne; zwłaszcza w fazie terminalnej, bolesnej i nieuleczalnej;
- choroby neurologiczne, nowotwory;
- HIV/AIDS;
- owdowienie, rozwód, zdrada, separacja;
- sytuacje traumatyczne, np. utrata bliskich w wypadku;
- utrata pracy lub przejście na emeryturę;
- konflikty rodzinne;
- negatywne sygnały przekazywane od osób bliskich, np. starsza osoba czuje, iż jest ciężarem dla rodziny;
- odrzucenie przez osobę znaczącą;
- wstyd i poczucie zagrożenia z powodu wykrycia winy danej osoby;
- wykorzystywanie seksualne, fizyczne, emocjonalne;
- mobbing w pracy;
- destrukcyjny wpływ otoczenia;
- pora roku; wiosna, jesień;
- dni tygodnia: poniedziałek, wtorek;
- okres po urodzinach; ryzyko popełnienia samobójstwa zwiększa się trzykrotnie w ciągu 2 tygodni po rocznicy urodzin;
- napięcie związane z przebywaniem w środowisku akademickim;
- problemy z kształceniem, niezaliczone egzaminy (Heitzman, 2007).

Wyróżniamy kilka typów samobójstw spowodowanych różnego rodzaju przyczynami dla których ludzie próbują lub skutecznie odbierają sobie życie (Tab. 1).

Tabela 1

Typy samobójstw wg klasyfikacji Durkheima (Krogulski, 2003).

Typ	Charakterystyka
Egoistyczne	Zbyt słaba integracja jednostki z grupą i społecznością. Samobójstwo jest tu negatywnym „produktem” współczesnych społeczeństw konsumenckich, w których wysokim wskaźnikom rozwoju cywilizacyjnego towarzyszy często silne poczucie środowiskowego wyobcowania, dramat ludzi „samotnych w tłumie”. Samobójstwo egoistyczne może (ale nie musi) być również anomicznym.
Altruistyczne	Nadmierna integracja ze środowiskiem, zbyt silna identyfikacja z celami, interesami i oczekiwaniami grupy.
Anomiczne	Zamach samobójczy jest przejawem zakłócenia ładu społecznego, wskaźnikiem jego rozregulowania, sytuacji, w której zachowania jednostki są w zbyt małym stopniu kontrolowane przez społeczeństwo. Inaczej mówiąc, jest to sytuacja dezintegracji społecznej, której efektem i wskaźnikiem jest m.in. narastanie samobójstw.
Fatalistyczne	Związane z sytuacją jednostkową. Jest to samobójstwo człowieka znajdującego się w sytuacji tragicznej, z której wyjścia są zablokowane również perspektywicznie.

Stan psychiczny osób o skłonnościach samobójczych charakteryzują szczególnie trzy cechy: Ambiwalencja – u osób o skłonnościach samobójczych pragnienie życia zmagają się z pragnieniem śmierci, raz bierze górę jedno a raz drugie, ktoś taki bardzo chce uciec od bólu istnienia, a jednocześnie pragnie żyć. Impulsywność – chęć popełnienia samobójstwa jest przemijająca i trwa kilka minut lub godzin, a wyzwala ją zwykle negatywne zdarzenia życia codziennego. Sztynność – ludzie w nastroju samobójczym nie są w stanie dostrzec innych dróg wyjścia, myślą w sposób radykalny. Większość z nich mówi o swoich myślach i zamiarach samobójczych. Często sygnalizują i stwierdzają wprost, że chcą umrzeć (*Zapobieganie samobójstwom. Poradnik dla pracowników podstawowej opieki zdrowotnej, 2003*).

Jeśli osoba w stanie wzburzenia lub ciężko chora zaczyna zachowywać się w określony sposób dając do myślenia, iż może chcieć rozstać się z życiem, to mamy wówczas do czynienia z zespołem presuicydalnym. Sygnały przemawiające o samobójstwie to:

- wypowiedzi typu; żałuję, że nie umarłem, beze mnie byłoby wam lepiej, nic nie mogę zrobić, jestem tylko ciężarem, już więcej tego nie wytrzymam;
- gromadzenie leków;
- napisanie testamentu lub pożegnalnego listu;
- rozważania o śmierci, rozmowy o grobach, zmarłych;
- zbieranie ostrych narzędzi, sznura;
- oglądanie miejsc uchodzących za dogodnych do samobójstwa;
- wydawanie zarządzeń dotyczących majątku;
- nagłe odizolowanie się od otoczenia;

- rozdawanie swoich rzeczy;
- nagła poprawa stanu psychicznego osoby będącej na skraju samobójstwa, czyli tzw. „złowieszczy spokój”.

Człowiek chory na depresję planujący samobójstwo może zdecydować się na zabicie również swoich najbliższych (tzw. „samobójstwo rozszerzone”). Motywem tragicznego zachowania, które zawsze wzbudza w otoczeniu wielki niepokój, może być chęć chronienia bliskich przed sytuacją bez wyjścia, nieszczęściem, cierpieniem, prześladowaniem, aresztowaniem lub też przed bólem istnienia.

Wszelkie zachowania presuicydalne powinny być dla rodziny sygnałem alarmowym zmusić do natychmiastowego działania, celem umieszczenia pacjenta możliwie szybko w szpitalu. Wielu pacjentów przed planowanym samobójstwem żegna się ze światem pisząc wiersze, co powinno stanowić bardzo ważny sygnał ostrzegawczy.

Ogromnym problemem, sprawą najwyższej wagi są samobójstwa u dzieci i młodzieży. Na całym świecie samobójstwo jest jedną z pięciu najczęstszych przyczyn zgonów w grupie wiekowej od 15 do 19 lat. W wielu krajach zajmuje pierwsze miejsce na liście najczęstszych przyczyn śmierci dziewcząt i chłopców w tym wieku. Metody samobójstwa są różne. Dziewczynki często zażywają nadmiar leków, chłopcy częściej niż dziewczęta umierają śmiercią samobójczą przez powieszenie, użycie broni palnej lub materiałów wybuchowych. Depresja występuje częściej u dziewcząt niż u chłopców, ale również jest im łatwiej niż chłopcom rozmawiać o swoich problemach, a więc zapobiegać aktom samobójczym ze skutkiem śmiertelnym. Chłopcy częściej bywają bardziej agresywni i impulsywni, nierzadko działają pod wpływem alkoholu i nielegalnych środków odurzających, co prawdopodobnie przyczynia się do tego, że w ich przypadkach akty samobójstwa kończą się zgonem. Do czynników, które chronią przed zachowaniami samobójczymi, należą:

- wzorce rodzinne: dobre relacje z członkami rodziny, wsparcie ze strony rodziny;
- styl poznawczy i osobowość: dobrze rozwinięte umiejętności społeczne, wiara w siebie, dobre mniemanie o swojej sytuacji i osiągnięciach, poszukiwanie w trudnych chwilach porady i pomocy innych, otwartość na doświadczenia i nową wiedzę;
- czynniki kulturowe i socjodemograficzne: integracja społeczna, dobre relacje z kolegami w szkole, dobre relacje z nauczycielami, wsparcie ze strony innych osób.

Najczęściej samobójstwo popełniają dzieci:

- chorujące na depresję;
- z zaburzeniami lękowymi;
- nadużywające alkohol i narkotyki;
- z zaburzeniami odżywiania;
- z zaburzeniami psychiatrycznymi (*Zapobieganie samobójstwom. Poradnik dla nauczycieli i innych pracowników szkoły, 2003*).

Wszystkie zachowania presuicydalne dzieci i młodzieży powinny być sygnałem ostrzegawczym zarówno dla rodzica, jak i nauczycieli. Do ryzykownych sytuacji i zdarzeń, które mogą wywołać próby samobójcze lub samobójstwa dokonane należą:

- problemy rodzinne;
- przemoc w rodzinie (włącznie z używaniem przemocy fizycznej wobec dziecka);
- niedostateczna opieka ze strony rodziców/opiekunów, przy złej komunikacji w rodzinie;
- częste kłótnie między rodzicami/opiekunami z napięciem i agresją;
- rozwód, separacja lub śmierć rodziców/opiekunów;

- częste przeprowadzki do innego miejsca zamieszkania; częsta zmiana szkoły i otoczenia;
 - bardzo wygórowane lub bardzo zaniżone oczekiwania ze strony rodziców lub opiekunów;
 - nieadekwatny lub nadmierny autorytet rodziców/opiekunów;
 - brak czasu rodziców/opiekunów, by zauważyć problemy emocjonalne dziecka i zająć się nimi;
 - środowisko negatywne emocjonalnie; odrzucenie lub zaniedbywanie dziecka;
 - sztywność rodziców; stworzenie sztywnych reguł obowiązujących w domu;
 - nadużywanie alkoholu przez rodziców/opiekunów oraz dzieci;
 - nadużywanie leków, środków odurzających;
 - zachowanie antyspołeczne w rodzinie;
 - rozstanie z sympatią;
 - śmierć kogoś bliskiego;
 - konflikty z prawem;
 - złe oceny i strach przed reakcją rodziców;
 - wysoki poziom wymagań w szkole w okresie egzaminów;
 - niepowodzenie na studiach;
 - niechciana ciąża, aborcja;
 - zakażenie wirusem HIV lub inną chorobą przekazywaną drogą płciową
- (*Zapobieganie samobójstwom. Poradnik dla nauczycieli i innych pracowników szkoły, 2003*).

Najczęściej opisywanym czynnikiem powodującym popełnienie próby samobójczej wśród dzieci i młodzież było połączenie objawów depresyjnych i zachowania antyspołecznego. Zgłaszający się po poradę lekarską uczniowie z depresją często podają objawy somatyczne takie jak:

- bóle głowy;
- bóle żołądka;
- bóle nóg;
- bóle w klatce piersiowej.

Depresyjne dziewczęta bywają milczące, przygnębione, smutne. Chłopcy z depresją mają natomiast skłonności do zachowania agresywnego i destrukcyjnego, wymagającego wiele uwagi ze strony nauczycieli i rodziców. Agresywność ta może prowadzić do osamotnienia, które samo w sobie jest czynnikiem ryzyka dla zachowań samobójczych.

Rozpoznanie złego stanu emocjonalnego dziecka, to bardzo ważny a jednocześnie trudny fakt. Należy traktować poważnie każdą nagłą lub radykalną zmianę, wpływającą na wyniki w nauce, obecność na lekcjach lub zachowanie dziecka czy nastolatka. Na szczególną uwagę zasługuje:

- brak zainteresowania zwykle wykonywanymi zajęciami;
 - ogólne obniżenie ocen;
 - złe zachowanie w klasie;
 - nieusprawiedliwione, powtarzające się nieobecności;
 - incydenty prowadzące do interwencji policji;
 - przemoc wobec innych uczniów;
 - palenie papierosów, picie alkoholu, używanie środków odurzających
- (*Zapobieganie samobójstwom. Poradnik dla nauczycieli i innych pracowników szkoły, 2003*).

Czynniki te pomagają zwrócić uwagę na dzieci, młodzież, uczniów w przypadku których istnieje ryzyko bardzo złego stanu emocjonalnego spowodowanego przez stres psychiczny i społeczny oraz myśli samobójczych prowadzących w końcu do zachowań samobójczych. Jeśli któryś z tych objawów rozpozna nauczyciel lub psycholog szkolny, powinien zawiadomić o tym cały zespół nauczycielski i podjąć działania zmierzające do dokładnego zdiagnozowania danego ucznia, ponieważ takie objawy zwykle wskazują na bardzo zły stan emocjonalny i w niektórych przypadkach mogą doprowadzić do samobójstwa. Kolejną grupą pacjentów u których odnotowuje się próby samobójcze są osoby w okresie wczesnej i późnej starości. Większość osób w wieku późnej starości, które mają myśli samobójcze, dokonują prób samobójczych lub umierają w wyniku samobójstwa, cierpi na depresję. Prawdopodobieństwo wystąpienia depresji wzrasta po 75 – 80 roku życia i występuje u ok. 30 – 60% osób w wieku podeszłym (Polewka, Chrostek, Szczepańska, 2006).

Czynniki ryzyka mieszczą się zarówno w kategoriach biologicznych, jak i klinicznych oraz psychospołecznych.

Teorie biologiczne koncentrują się na związku choroby fizycznej ze zwiększonym ryzykiem samobójstwa; ból, skumulowane objawy, ograniczona sprawność fizyczna mogą wywołać stres, w wyniku którego może rozwinąć się depresja i myśli w rodzaju „czy życie wciąż jest warte życia?!”.

Depresja może wynikać zarówno z błędnej oceny własnego życia jak i braku umiejętności zmagania się z problemami i stresem. W większości przypadków samobójstw u osób w wieku podeszłym istotne znaczenie ma więc rozpowszechnienie zaburzeń psychicznych, szczególnie z kręgu depresji oraz związanych z wiekiem towarzyszących chorób somatycznych, a także obecnością wcześniejszych postaw samobójczych. Ponieważ ludzie starsi cierpiący na depresję, generalnie nie korzystają z placówek opieki zdrowia psychicznego a raczej skarżą się na dolegliwości somatyczne, ważne jest aby w czasie przeprowadzania oceny zdrowia fizycznego zdiagnozować pacjentów również pod kątem depresji i myśli samobójczych (Pużyński, 2006).

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SYSTEMATIC REVIEWS IN THE PRACTICE OF THE EPIDEMIOLOGY OF TRAUMATIC BRAIN INJURIES

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Abstract. High quality epidemiological data are vital for planning effective public health preventive strategies, providing health care services and evaluation of their effectiveness. Systematic reviews provide a summary of the results of carefully selected studies in a methodologically defined reproducible process. Authors of this article will present their experiences with the living systematic review of the epidemiology of traumatic brain injuries in Europe developed within the international project CENTER-TBI using the standardized methods.

Keywords: living systematic review, traumatic brain injuries, epidemiology, evidence-based medicine.

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Introduction

Systematic reviews by their nature provide a summary of the results of carefully selected studies in a methodologically defined reproducible process (Elliott *et al.*, 2014). The authors of this article will share their experiences in the use of systematic reviews for improving outcomes of patients after brain injury. The scientific value, form and how to perform systematic reviews, with examples for practice will form a part of this article.

Injuries are an important issue in public health and are one of the most common causes of mortality, especially in the group of young adults. Following cardiovascular, cerebrovascular, cancer and respiratory diseases, injuries are the fifth most common cause of death in the European Union (European Commission, 2015). Traumatic brain injuries affect approximately 2.5 million people each year in Europe, and of these 1 million cases will lead to hospital admissions, and 75 000 deaths (Maas *et al.*, 2015).

Health research holds the potential of social benefits in the form of improved health. However, there has always been a certain gap between the results of research (evidence) and

health care practice (*WHO, 2005*). Systematic reviews are important for bridging the gap from knowledge to practice by the synthesis of the high-quality evidences.

High quality epidemiological data are vital for planning effective public health preventive strategies, providing health care services and evaluation of their effectiveness (*Andelic, 2013; Koskinen and Alaranta, 2008; Popescu et al., 2015*). There is a need to understand the patient-specific characteristics such as age, mechanism of injuries, and specific sensitive groups to reduce the occurrence of injuries in the society (*Leibson et al., 2011*). The variations in data collection and analysis in population-based studies lead to the need to use standardized methods (*Maas et al., 2011; Menon and Maas, 2015; Menon et al., 2010*).

Why systematic reviews?

The synthesis of complex, incomplete, and occasionally contradictory results of biomedical research into forms that can effectively orient health care professionals, in decision-making is a basic component of the bridge between theory and practice (*Elliott et al., 2014; Sackett et al., 1996*). Systematic reviews are key stages for evidence-based health care. The need to perform them before generating new data is highlighted by several international groups. One example is EBRNetwork, which directly encourages researchers to reduce waste of research, and this network helps to clarify an evidence-based approach through numerous available sources of information and news (*EBRN, 2018*).

The beginnings of systematic reviews date back to 1753 when James Lind, a Scottish naval surgeon, presented a critical and chronological view of his previously published information about scurvy in his famous treatise (*Lind, 1753*). This summary of the diverse nature of the research results remains an important task of systematic reviews. Moreover, systematic reviews are generally recognized as the most reliable source of research findings (*Ioannidis et al., 2014*). Their position is at the top of the evidence hierarchy (*Murad et al., 2016*). They are also key to clinical and policy guidelines published by international organizations such as the World Health Organization (*WHO, 2014*).

The ultimate aim of the article is to describe procedures of incorporating the systematic reviews into scientific exploration of factors, which may lead to improved understanding of risk factors, higher-risk groups, and outcomes of people following brain injury.

Methodology

Synthesis of Evidences

The team of Trnava University has gained experience in conducting systematic reviews of epidemiology of traumatic brain injuries (TBI) in Europe (*Brazinova et al., 2016*). This work was carried out within the CENTER-TBI (Collaborative European NeuroTrauma Effectiveness Research in Traumatic Brain Injury) project, a multi-centre study involving 38 organizations from Europe and USA (*CENTER-TBI, 2018*). A team of experts from Trnava University has long been involved in comprehensive research on epidemiology of traumatic brain injuries in Europe and conducting systematic reviews (*Rehorčíková et al., 2016*). This team cooperates with partners from Australia's Monash University and follows the gold-standard Cochrane Collaboration guidelines. Cochrane Collaboration is a recognized

international non-profit organization that creates, supports and disseminates systematic reviews and meta-analyses about the effectiveness of the healthcare interventions (COCHRANE, 2018a).

In compliance with generally accepted methodology our team started designing progressive work plan - a protocol before performing each systematic review (Synnot et al., 2016). We made use of the protocol writing procedure PRISMA *Preferred Reporting System for Systematic Reviews and Meta-Analyses*. PRISMA represents a checklist that consists of 27 items that relate to the process of developing individual parts of a systematic overview and a flowchart. This flowchart illustrates the process of studies selection (Moher et al., 2009). Protocols are then registered in the international databases. Examples are the Cochrane protocols published in the Cochrane library (COCHRANE, 2018b), as well as the international PROSPERO registered protocols database (NIHR, 2018). These databases are primarily created to provide an overview of the systematic reviews that will result in the retrospective compliance with the stated objectives in the protocol and avoid duplication.

The protocol must include all steps to be taken when preparing a systematic review (Synnot et al., 2016):

- Search for relevant studies within the electronic databases in which the search will be carried out, using pre-specified keywords and search algorithms.
- The screening process and the inclusion/exclusion criteria.
- Assessment of the methodological quality of studies to the identified research question.
- Data synthesis from included studies.

For reporting of systematic reviews developed in this project we followed IMRaD (Introduction, Methods, Results, and Discussion) structure. The first phase of the process was the identification of the study. Using search algorithms that consisted of keywords entered to the bibliographic databases (such as PubMed, Embase, Cinahl), a longlist of studies was acquired. At this stage, we removed possible duplicates that were created by searching multiple databases using the same keywords. Then, the phase of title- and abstract-screening of all the studies identified in the first phase began. Evaluators from our team, based on well-defined inclusion and exclusion criteria, selected abstracts as the basis for moving to the next stage. Finally, the full text screening of those studies where abstracts were selected in the previous phase was performed. Whenever possible we used another independent evaluator, other than those evaluating the inclusion of abstracts, performing this activity. As a result, only those studies that met the specified selection criteria were included to the final set of studies. These were included into a systematic review and were ready for use or publication.

A detailed overview of all of the included studies (design, population, studied period, data sources, definitions and number of cases) should be presented in any systematic review. Another important part is the description of the methodological quality assessment of the studies. The aim is to eliminate those studies with systematic errors or misleading factors (Synnot et al., 2016). There are various tools available for this rating process. One of them is the MORE checklist (Methodological evaluation of Observational REsearch) (Shamliyan et al., 2011). These tools help to evaluate the validity of the study, i.e. whether the methodological deficiencies are present or absent in the design of studies, in data collection, data analysis. The studies quality assessment should be carried out by two independent authors of the systematic review.

Data from the individual studies can be synthesized in a descriptive way – using tables, or by using statistical methods – meta-analysis. Performing meta-analysis is potentially

useful, because the combined population size of the individual studies increases the total sample size. This will increase the statistical strength of the analysis as well as the precision of the effect estimation (Akobeng, 2005; Clarke and Chalmers, 2018). However, such analyses can only be fairly performed if the studies of the original studies, which contribute data to the analysis, are sufficiently similar. The meta-analysis consists of two phases. The first step involves calculating the effect size with 95% confidence intervals (CI 95%) for each individual study.

In the second phase, the total efficacy effect is calculated in the form of a weighted average of the individual summary statistics. An important fact is that in meta-analysis data from the individual studies are not combined as if they were from one study. Higher weights are attributable to the studies that provide more information and are likely to be closer to the "true effect" (Akobeng, 2005).

New form of the systematic reviews

Recently, a new variation called "living" systematic reviews is available as a form of systematic review. The basic difference between these new "living" versions and conventional systematic reviews is the format of the publication. "Living" systematic reviews are dynamic summaries of the evidences and are available online only. They are unique by being regularly updated (for example once every 3 to 6 months) with the results of the new studies (Elliott et al., 2014).

Results

Authors of this article have developed the systematic review of epidemiology of traumatic brain injuries in Europe, which is an example of a "living" systematic review (Brazinova et al., 2018) and are publishing its updates as online supplementary material in the Journal of Neurotrauma. This Trnava University team within the project CENTER-TBI participates in the Living Evidence Network (LEN) led by the representativeness from the Monash University in Australia (Cochrane Community, 2018). The LEN is an informal network with members including Cochrane and non-Cochrane researchers, policymakers and guideline developers and includes 5 Interest Groups:

1. Search.
2. Technology.
3. Methods.
4. Publication.
5. Knowledge translation and stakeholder engagement.

Interest Groups are designed for information-sharing for the many LEN members who are keen to stay abreast of developments in their field and to facilitate ad hoc discussion on topics relevant to the Interest Group (Cochrane Community, 2018).

The process of doing updates is a very similar to the original systematic review and is performed in a standardised way. The example of the process of the first update developed by the authors of this article is presented in the Figure 1.

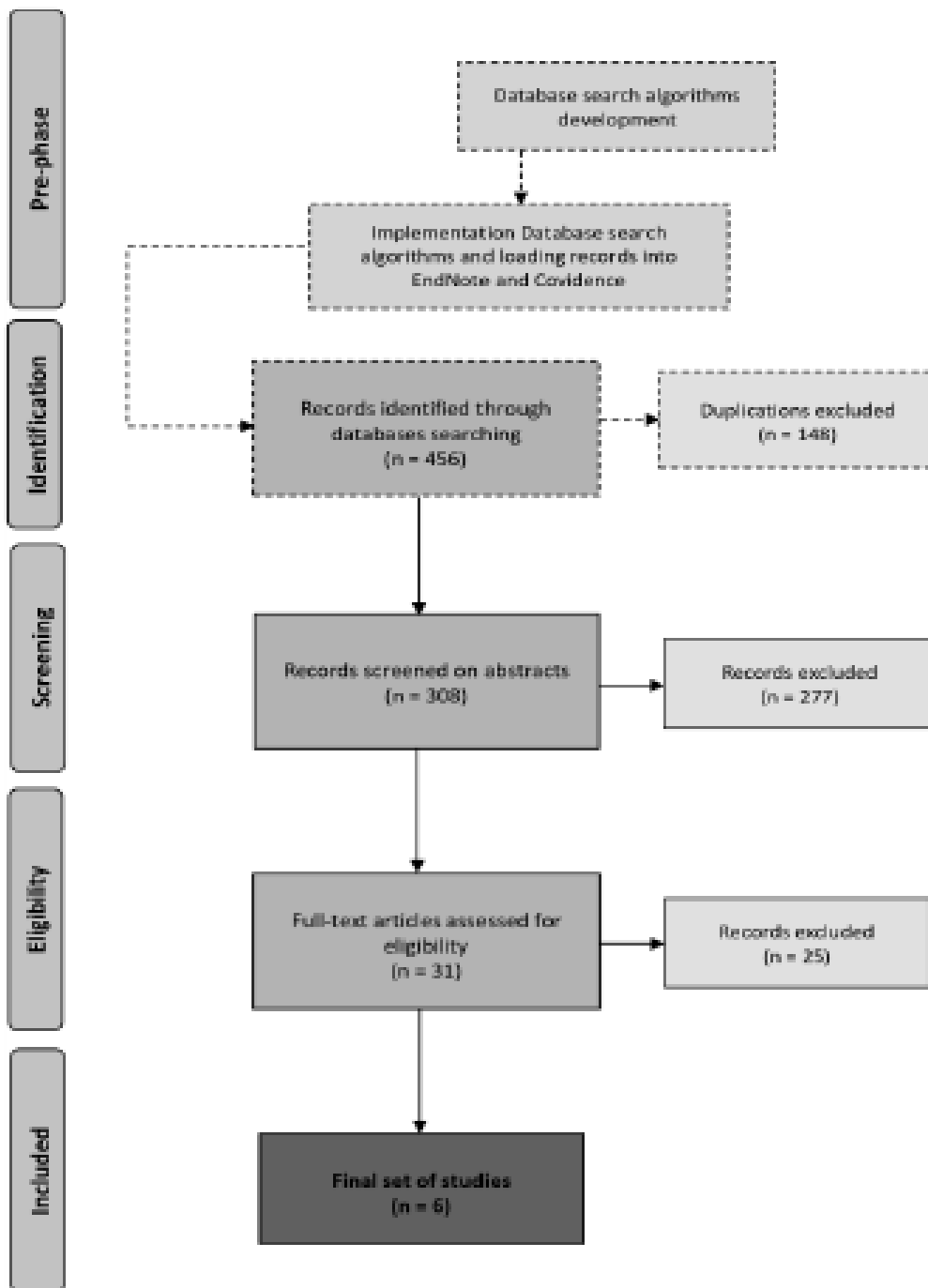


Fig. 1. The process of developing the “living” part of the systematic review

One difference is in the method of searching for new records - re-running search. This means that the results of the databases are again searched and the date of the last search is very important for the other update. This is performed by the re-creating the database search algorithms with the new dates or using the databases' automatic alerts of newly published studies. Within this pre-phase there is a need for careful management of the whole screening process. The authors of this living systematic review are using the managing toolkit of the Cochrane's review production – Covidence (COVIDENCE, 2018).

Other steps in the development of a living-systematic review, such as abstracts and full-text papers screening, assessment of the methodological quality of included studies are performed by a standardised process as in any original systematic review. Data synthesis is performed by the combination of new results with anything previously published.

A table with the search dates, number of newly included studies and with implications for practice is very helpful as an overview of the new results, within the living part of the original systematic review, Figure 2.

<i>Version</i>	<i>Search date</i>	<i>No. new included studies</i>	<i>Implications for conclusions</i>
Original	January 2015	66	n/a
Update 1	February 2016	This update: 6 Cumulative for updates: 6	unchanged
Update 2	March 2017	This update: 4* Cumulative for updates: 10	Wider range of national incidence rates
Update 3	November 2017	This update: 6* Cumulative for updates: 16	First pooled results from multi-national studies
Update 4**	August 2018	This update: 2 Cumulative for updates: 18	Highest national incidence, (although we note wide inclusion criteria)

*Two studies that have previously been mentioned as showing mechanisms of injury, have since been deemed ineligible as they did not publish any rates.

**A review of the search strategy was undertaken prior to the August 2018 search. See Appendix S1 for details.

Fig. 2. Example of living systematic review history (Brazinova et al., Suppl. 2018)

As in the original systematic review, the Methodological quality of the newly included studies in the living updates is assessed using the MORE checklist (Methodological Evaluation of Observational REsearch) (Shamliyan et al., 2011). Studies are not excluded from the review according to their methodological quality, but the rigour of reported design is described in the textual summary of results. The assessed domains with the proportions of their scored criteria such as: general descriptive elements, external validity, internal validity and reporting of the estimates are presented in the Figure 3, as the example of their assessment (Brazinova et al., Suppl. 2018).

Discussion

Incorporating systematic reviews into research and clinical practice, may be limited by the fact that there is no such review in the given area, or that previous systematic reviews are obsolete. This leads to opportunities for research teams that are specialized in performing such reviews and publishing the results.

	OK n (%)	Minor flaws n (%)	Major flaws n (%)	Poor reporting n (%)	NA n (%)
General descriptive elements					
Aim of study	13 (72)	1 (6)	1 (6)	2 (11)	1 (6)
Funding of study	13 (72)	0	0	5 (28)	0
Conflict of interest	17 (94)	0	0	1 (6)	0
Ethical approval	11 (61)	0	0	7 (39)	0
Study design	13 (72)	0	0	5 (28)	0
External validity					
Sampling	10 (56)	8 (44)	0	0	0
Definition of cases					
• Validation	11 (61)	2 (11)	4 (22)	1 (6)	0
• Severity of TBI	8 (44)	2 (11)	3 (17)	3 (17)	2 (11)
Sampling bias	10 (56)	1 (6)	1 (6)	4 (22)	2 (11)
Subject flow	17 (94)	0	0	0	1 (6)
Internal validity					
Reporting of methods					
• Source of data	10 (56)	8 (44)	0	0	0
• Reliability of estimates	15 (83)	1 (6)	0	2 (11)	0
Reporting of estimates					
Incidence*					
• Incidence type	7 (78)	2 (22)	0	0	0
• Precision of estimation	6 (67)	1 (11)	2 (22)	0	0
• Type of incidence rate in total sample	3 (33)	5 (56)	0	1 (11)	0
• Type of incidence rate in subgroups	3 (33)	4 (44)	0	2 (22)	0
Mortality**					
• Mortality type	4 (27)	2 (13)	9 (60)	0	0
• Precision of estimation	3 (20)	2 (13)	10 (67)	0	0
• Type of mortality rate in total sample	3 (20)	2 (13)	1 (7)	0	9 (60)
• Type of mortality rate in subgroups	4 (27)	1 (7)	1 (7)	0	9 (60)

MORE, Methodological Evaluation of Observational Research checklist; TBI, traumatic brain injury; *reported in 9 studies; **reported in 15 studies

Fig. 3. Quality assessment of the studies included in the living part of the original systematic review using MORE checklist (Brazinova et al., Suppl. 2018)

Systematic review preparation is a complicated process, and depends on the type of clinical studies that are available, how they were performed (the quality of the studies), and which health outcomes were processed. We have produced the most up-to-date and complete review of TBI epidemiology across Europe. The methods used in this review were standardized and well described.

Not all systematic reviews should have this “living” approach. The LSRs are important if the systematic review is necessary for decision-making and allocation of sources, the existing evidence is a low quality and uncertain, current information can change the previous findings, new evidence is emerging (Elliott et al., 2017).

The systematic reviews are as good as the primary data sources are. This is the reason why each study included in a systematic review should be assessed for its quality. It is important, that the authors of the high quality systematic reviews report the methods used for bias assessment (Drucker, Fleming and Chan, 2016). However, bias can occur in any stage of the review process. The potential bias of the systematic review should be stated for the users when interpreting the results and conclusions (Whiting et al., 2016).

Authors of systematic reviews must take all possible steps to prevent potential biases. The Cochrane Collaboration guidelines (Higgins et al., 2016) and US Institute of Medicine standards (Eden et al., 2011), the PRISMA statement (Moher et al., 2009) help to minimize bias in the systematic review development. The Trnava University team presented several limitations to their LSR on epidemiology of TBI in Europe. These limitations were related to the case ascertainment and definitions of TBI, different TBI reporting procedures and

practices across Europe, the methods used to ascertain the mechanism of injuries in the included studies (Brazinova et al., 2016).

Conclusions

The authors recommend that systematic reviews should take their place in the practice of health care professionals, and the compilation and comprehension of such documents should be an important competency of both academic and clinical staff. The Department of Public Health of Trnava University has demonstrated its expertise in the international project CENTER-TBI and offers cooperation in similar activities.

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- 1) It is essential to send the article to the editorial staff by e-mail. The editors will verify and approve the article for publication. Along with the article, it is necessary to send scancopies of two reviews (one of them is a linguistic review – up to sample), as well as a completed and signed by the author of the scientific work, application form (up to sample). - pnap@ap.edu.pl
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 - the sources (bibliography) should contain at least 50% of Scopus Journals references;
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II. THE PRINCIPLES CONCERNING TEXT COMPOSITION

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of the text.

- Polish or English abstracts should not exceed 200 words;
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- 5) At the end of the summary should be placed keywords (from 2 to 5 words) in Polish and in English. Key words must not duplicate the title;
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The bibliography to the article should be edited in the alphabetical order.

The bibliography in English should be arranged according to international bibliographic standard APA (<http://www.bibme.org/citation-guide/APA/book>)

Information Economy Report 2012. (2012). United Nations Conference on Trade and Development (UNCTAD) Information Economy Report (IER). doi:10.18356/c48133e3-en
 Porat, M. U. (1978). Global Implications of the Information Society. J Communication Journal of Communication, 28(1), 70-80. doi:10.1111/j.1460-2466.1978.tb01565.x

In bibliographies should not be given website addresses as the scientific sources, because the texts published on Internet and having only their electronic form cannot be treated as publication in the scientific sense.

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 - Illustrations: drawings and photos with the font size
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 - the table font size of 10 points;
 - quotations with the straight-line fonts given in the double quotation-marks;
 - word forms and foreign words (inflexible in the language of article) should be written with the Italics font style;
 - Meanings of words shall be given in so-called „semantic commas” (i.e. inverted single commas): ‘meaning’

The contents of articles, the credibility of data, facts, quotations, level of self-dependence of obtained results are entirely the responsibility of the authors of the articles

*THE EXAMPLE OF THE DESIGN OF MATERIALS***NEW ECONOMIC SYSTEM OF SOCIETY DEVELOPMENT****John B. Sitdson**PhD, Polonia University in Czestochowa, e-mail: js@gmail.net,
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Abstract. The article deals with the information economy as a new economic system wherein information and knowledge are the main products. It is proved that a central component of an economic system is work with information and use of information systems in the process of management. The author substantiates the requirement for the search of new approaches to the solution of problems of development of institutional structures of information economy.

Keyword: knowledge, information, system, information economy, management.

Introduction

Global growth of information and telecommunication technologies, on the one hand, and also the necessity of development of scientific knowledge in the area of theory, methodology and practice of informative approach of study of information economy and society, on the other hand, determines topicality of consideration of the process of formation of information economy. Information turns into a strategic resource and factor of acceleration of scientific, technical and technological development and becomes a part of the real economy.

Information economy as a new economic system of the development of society

It presupposes the conceptual comprehension of the process of establishment of an informative and technological method of production and related to it forming of an information paradigm in a modern economic science.

The evolutionary process of the establishment of information society is represented in researches of P. Drucker, who used a notion “information revolutions” (Drucker, 1989). He worked out the theory of the stages of development, which allows deeper understanding of the logic of establishment of information economy.

The term “information economy” was first used in 1976 in works of Mark Porat, an employee of the Stanford Centre and designated by him as a cluster of industries, engaged in the production of modern databases and facilities which provide their application and functioning (Porat, 1978). He is given the credit for introducing a distinction between the primary and secondary information sector of economy. A primary sector, according to his opinion, can be estimated quantitatively, while everything is much more difficult with the secondary one.

The Revolution in the development of information technologies allowed to talk about a global network, which materialized the globalization of economy. New information technologies, in fact, are not simply becoming the instruments of application, but also the

processes of development. The system - oriented analysis of the information economy with due regard to the forming informative paradigm of the economic theory requires additional consideration.

Governments in this system play a key role, being the large users of software (in particular, due to the technologies of electronic national administration and government procurement), and that's why they greatly influence the factors, providing existence of this system.

As we pass on to the information economy the popularity of information processing systems and company management is intensively growing. The increase of fitting of companies with hardware and software of information technologies, which demand support, made companies search ways of solution of a problem of increasing expenses. The use of cloud technologies considerably facilitates the work in those cases, when the potential consumers of the application solution are not incorporated into a local network, possess diverse equipment and aren't disposed to follow any obligatory recommendations concerning hardware and software configuration in the sphere of economy.

The penetration of new technologies in the informative market happens due to its technical constituent and directly influences the information constituent of the market, the part of which is management information systems (MIS). It should be noted that among the tendencies, which we've distinguished the technology of hybrid cloud computing is universally called - for practically for all types of MIS, and basic efforts of most companies will be directed exactly to its application.

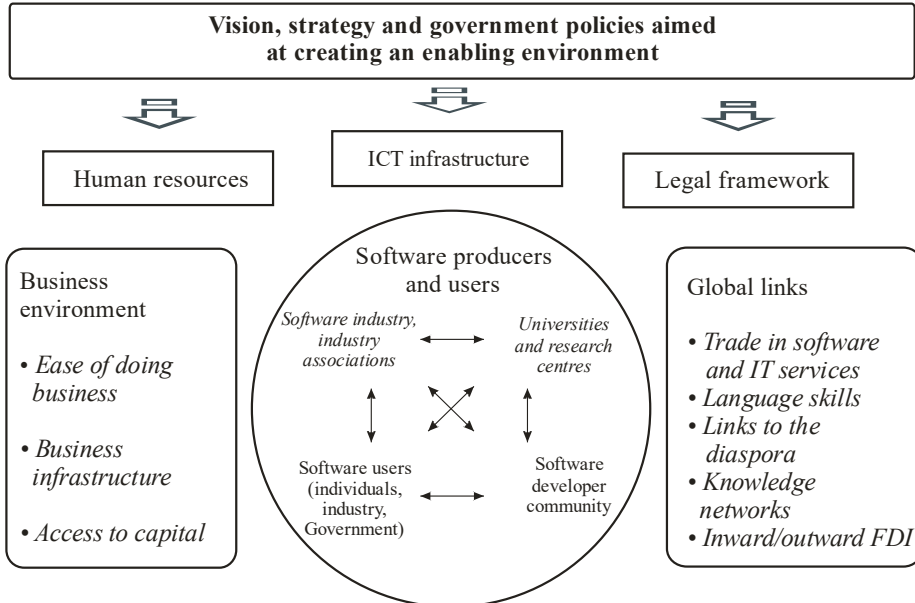


Figure. 1. A national software system (Information Economy Report, 2012)

The process of globalization generated the new phenomenon, when a global technological leader, which possesses a key technology, in the process of innovative activity

and by means of large - scale investments accumulates technologies similar to the basic one or other, substantially extending its principal properties. A synergetic effect from the application of this activity results in the permanent instantaneous “switching” of a leader to the more advanced overriding technology.

Moreover the permanent transformation of industry standards of this market by the technological leaders with the purpose to change it and get greater benefits takes place.

Conclusions and suggestions

Conception of information economy includes fundamental definition of information society. It's defined as a system of connections and relations between individuals, which appear in the process of interchange of information concerning social and economic activity. Information economy is simultaneously defined as a system of public relations, wherein the information is a basic productive resource.

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Drucker, P. F. (1989). The new realities: In government and politics, in economics and business, in society and world view. New York: Harper & Row.

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