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THE LEVEL OF KNOWLEDGE INTENSITY OF THE COUNTRY'S ECONOMIC SYSTEM

Hryhorii Bashnianyn¹, Valentyna Kutsyk², Irena Svidruk³

Abstract. The relevance of studying the issues of the knowledge intensity of economic systems has led to the conduct of these studies and determines their scientific and practical significance. *The purpose* of the study is a multidimensional analysis of the knowledge intensity of the domestic economic system, in particular, its creative potential, the activity of technological modernization of industry, and the creative initiative of economic actors. In the process of research, the EBRD *methodology* is used to evaluate the development of the knowledge economy, taking into account the specifics of the national organization of official statistical observations. In 2017, more than 1.8 thousand domestic enterprises (in the industrial sector – 1159 enterprises) created and used the latest technologies, innovation proposals, and other objects of intellectual property rights. The highest rates of creative activity were observed steadily among enterprises of information and communication sphere, financial and insurance directions, and also in the field of engineering. The leaders in the production and implementation of technological research and development (R&D) were processing industry, energy, engineering, professional scientific and advertising activities, non-technological – financial, insurance, information, telecommunication, processing enterprises. By types of economic activity, pharmaceutical companies, manufacturers of precise and extremely-precise equipment, chemical industry enterprises steadily occupied the leading positions in the field of creative activity. The analysis of regional dynamics shows the general tendency of reduction in the number of industrial enterprises that created, used or distributed creative developments. In general, during the period of research, the creative activity of enterprises decreased by almost a third, and downward processes are characteristic for almost all regions of Ukraine. In 2017, 2387 product innovations were introduced by the objects of industry, including innovative devices, equipment, machines, most of which were new for the relevant market. Today, there is a sufficient scientific and practical foundation for the development of creative clusters in high-tech sectors. However, these processes are hampered over the lack of budget allocations. There is a tendency of increasing R&D financing by leading industrial enterprises, establishing the practice of their acquisition of high-tech equipment and related technologies. In 2016–2017, there was a restructuring of investment flows, which manifested in reducing the costs of R&D intellectual components and reorientation of financial flows towards the acquisition of modern production equipment. In order to implement their own creative and innovative programs, in 2017, enterprises acquired 832 new technologies, most of which were completed with the corresponding equipment. By industrial enterprises, 59 creative technological developments were created and transferred to other entities. Total investments in updating domestic industrial enterprises amounted to more than 9.1 billion hryvnias in 2017. By types of economic activity, the leaders were the machinery and equipment industry and the food industry. *Conclusions.* Therefore, the significant creative potential of the domestic industry, further enhanced by active cooperation with scientific institutions, can become the basis for structural transformation and a source of scientific and technological “breakthrough” of our state.

Key words: high-tech sector of economy, creative activity, creative cluster, creative initiative, technological modernization, technological research and development.

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1. Introduction

Irreversible integration of Ukraine in the world economic system extremely actualizes the issue of improvement of knowledge intensity status of the domestic economy because today there is a rather high risk of occupying the place of an exporter of cheap human resources or becoming an agro-raw material supplier for developed countries. At the same time, the current trends in the development of the national economy confirm its steady direction towards the creation of high-tech competitive products with high added value. The degree of conformity of applied technologies and equipment to the requirements of the high-tech environment determines the cost, resource, and energy intensity of production processes. Consequently, the value of knowledge intensity of competitive production, which is based on scientific research, relations between scientific knowledge and production processes, continuous self-training of creative personnel, increases. The inadequacy of studying the issues of knowledge intensity of economic systems has led to these studies and determines their scientific and practical significance.

The purpose of this study is a multidimensional analysis of the knowledge intensity of the domestic economic system, which is based on the creative potential and technological modernization of industry.

In the process of research, the EBRD methodology for evaluating the development of the knowledge economy, taking into account the specifics of the national organization of official statistical observations, is used.

2. Development of creative potential in countries of Central and Eastern Europe

Modern challenges of the rapid development of a globalized society elevate the problems of intensified knowledge management development to higher levels of priority of the world economic community. These trends are conditioned, first of all, by the etiological

factors of the formation and development of the knowledge economy, in particular, the rapid growth of knowledge intensity, intellectualization and high technology of production, which entails the need for a significant increase in labour productivity and actualizes the emergence of the newest post-industrial market segments.

The economic processes of the countries of Central and Eastern Europe in recent years are characterized by the intensification of knowledge management. One of the recognized leaders in building an information society among them is Poland, which recently is actively increasing the potential of the IT industry and invested more than 3.5 billion USD in the high-tech sector and attracted more than 500 thousand specialists. An interesting feature of Poland's creative economy is that its subjects are mostly small enterprises. Successful informatisation of the society is promoted by state support for the development of high-tech production. In the meantime, despite the significant strengthening of the creative potential of the countries of Central and Eastern Europe in recent years, the main development indicators still do not reach the corresponding indicators of the leading countries (Table 1).

In particular, the level of expenditures on R&D remains much lower, which negatively affects the dynamics of creative economic development. Processes of strengthening the personnel potential of science require intensification that would increase the share of employed in high-tech industries and qualitatively influence other indicators of creative activity, in particular, the processes of scientific and production cooperation and development of high technology industries.

In 2013-2017, there was a tendency for expanded involvement of private business representatives in knowledge-intensive and high-tech industrial production, in particular, in the fields of pharmaceuticals, electronics, and communications, which greatly

Table 1

The level of creative potential of the countries of Central and Eastern Europe in 2017

Country	The share of science expenditure in GDP, %	Number of researchers (per 1 million population)	The share of high-tech products in commodity exports, %	Cooperation of science and business, %	The intensity of competition at the local level, %
Bulgaria	0,53	1586,7	7,9	0,16	0,29
Estonia	1,44	3210,3	9,1	0,77	0,80
Latvia	0,46	1601,2	7,6	0,60	0,42
Lithuania	0,84	2541,1	10,6	0,78	0,54
Poland	0,68	1597,6	6,7	0,54	0,73
Romania	0,48	894,8	10,9	0,17	0,30
Serbia	0,88	1060,1	0,59	0,02	
Slovakia	0,48	2437,7	7,1	0,46	0,74
Slovenia	0,85	3678,8	5,5	0,65	0,64
Hungary	1,15	2006	24,2	0,77	0,73
Croatia	0,83	1571,3	9,2	0,45	0,17
Czech Republic	1,52	2754,8	15,3	0,79	0,89

increased the competitiveness of the corresponding products. However, an indicator of competitive intensity at the local level (one of the indicators of the Global Innovation Index) in Central and Eastern European countries still does not reach the level of economically advanced countries.

The low creative activity of enterprises is conditioned, first of all, by the lack of financial resources for the qualitative disclosure of creative potential. The lack of foreign investment in high-tech sectors of the economy requires an increase in the enterprises' own resources and the search for opportunities for state support. However, in most countries of Central and Eastern Europe, at the initial stage of economic transformation, there was a separation of state institutions from investing in the scientific and technical sphere. At the next stage, this became one of the reasons for the technological lag behind the leading countries and led to the need to develop appropriate "catching-up development" strategies aimed at the rapid economic growth and technological breakthroughs. In order to implement such strategies, tools for attracting foreign capital, developing export-oriented models of the economy, and concentrating domestic financial resources on high-tech production lines are actively used.

The adaptation of the national economies of Central and Eastern European countries to the realities of the post-industrial structure requires a reorientation to the latest development model based on the dominant development of the existing intellectual, creative, and scientific and technical potential. Priority is given to the production of original knowledge and technologies, and the corresponding institutional means of stimulating activities in the field of high technologies such as electronics, nanostructured chemicals, energy, and biotechnology are created. Correspondingly, diversification of managerial tools for the creation and diffusion of new knowledge and facilitation of access to databases and intelligent systems are envisaged by the state strategic development programs.

3. Ukrainian industry's creative potential

In 2013-2017, the share of enterprises that carried out scientific and technological innovations in their activities amounted to 18.4%, of which 11.8% of enterprises declared technological updating, including 5.7% of enterprises created product innovations, 10.3% – introduced process innovations. Out of 13.4% of enterprises engaged in non-technological creative developments, 8.7% relate to organizational innovations and 10.2% to market developments (State Statistics Service of Ukraine, 2018).

In the service sector, creative and innovative entrepreneurship in Ukraine is most often represented by Internet entrepreneurs, web-specialists, and creative studios with creative authoring services. These areas

are most highly characterized by high flexibility and adaptability, which allows levelling high risks of implementing creative projects and, if necessary, making managerial decisions for the rapid conversion of research programs and diversification of their areas of use.

In addition to enterprises of IT services, the largest creative and innovative activity in 2013-2017 was shown by large enterprises with a number of attracted personnel of 250 or more persons (an average, 39.6% of all enterprises of this type) while the shares of innovation-active enterprises in the medium and small business were 24.7% and 14.8%, respectively. It is clear that the refusal of the majority of small and medium-sized enterprises from high-tech creative developments indicates, first of all, their efforts to avoid additional risks that can substantially burden already imperfect financial and economic opportunities. At the same time, the low creative activity of powerful industrial enterprises directly indicates the steady orientation of the existing development model of the national economic system to low-tech production and in general significantly reduces competitive positions of the industrial sector (Sobkevych, Sukhorukov, Shevchenko, Krupeljnyckja, 2013). Alongside with that, the significant creative potential of the domestic industry, further enhanced by active cooperation with scientific institutions, can become the basis for structural transformation and a source of scientific and technological "breakthrough" of our state.

4. Technological modernization of Ukrainian industrial complex

The national industrial sector requires active use of creative management schemes capable of directing the vector of innovation development towards the development of scientific and technological potential. This will contribute to improving the competitiveness of products manufactured by using the latest technology and innovative production equipment. The additional effects of creative and technological modernization of the domestic industrial complex, capable of providing its sectoral restructuring, are the access to new markets (and hence – increase of sales volumes and improvement of financial results) and updating of the scientific and technological base of production (with the corresponding optimization of production processes).

In 2017, more than 1.8 thousand domestic enterprises created and used the latest technologies, innovation proposals, and other objects of intellectual property rights; in particular, in the industrial sector of the domestic economy, 1159 enterprises used R&D results (Table 2). During 2013-2017, the highest rates of creative activity were observed steadily among enterprises of information and communication sphere (22.1% of all enterprises of this sector), financial and insurance directions (21.7%), and also in the field of engineering (20.1%).

Table 2

Distribution of creative active enterprises by industry in 2017 (units)

	Total	Number of enterprises that			
		created advanced technology	used advanced technology	used intellectual property objects	used innovative suggestions
Total for Ukraine	1835	135	1669	368	203
Industry	1159	44	1127	222	75
Wholesale and retail trade; repair of motor vehicles	54	2	38	2	27
Transport, warehousing, postal and courier activities	218	1	203	24	14
Information and telecommunications	112	27	71	34	63
Professional, scientific and technical activities	217	36	172	59	14
incl. research and development	91	27	78	43	10
Public administration and defence, compulsory social insurance	7	5	1	–	2
Education	46	18	39	23	4
Health care and social assistance	21	1	18	4	4
Provision of other types of services	1	1	–	–	–

Regarding the introduction of technological R&D by the domestic industrial enterprises, the leaders are such branches as processing industry (15.6% of all enterprises of the industry), energy (12.6%), engineering, professional scientific and advertising activities (13.2% each). The leaders in the production and implementation of non-technological innovation in the studied period were financial and insurance enterprises (18.0% of all enterprises of the industry), information and telecommunication (17.3%), and also processing enterprises (15.3%).

By types of economic activity in 2013-2017, pharmaceutical companies (53.8% of all enterprises of the industry), vehicle manufacturers (37.1%), manufacturers of electronic and optical products (34.0%), precise and extremely-precise equipment (25.2%), and chemical industry enterprises (25.0%) steadily occupied the leading positions in the field of creative activity.

5. Technology transfer

Sustained trends in the growth of the role of creative potential for innovation in industrial development require adequate managerial regulation in the field of technology transfer from the academic science sector, the creation of effective mechanisms for the R&D commercialization and stakeholder cooperation. For the consolidation of information resources of state and public institutions, innovative enterprises, and scientific organizations in a single network, a pilot project “Ukrainian Technology Transfer Network UTTN” was created. Technology transfer for the purpose of integration into European transfer networks is defined as the institutional purpose of the formation, which involves increasing the efficiency of using the

domestic intellectual potential, commercialization of R&D of academic universities and research institutions, reorientation of the industry to the production of high-tech products (Novikov, 2015). Creation of EEN-Ukraine Consortium has defined the business-technology cooperation of innovative enterprises and scientific organizations of Ukraine and the EU. One should also note transfer activity of the Ukrainian Institute of Scientific and Technical Expertise and Information, which regulates Ukraine’s partner relations with the international community and promptly provides business structures and scientific organizations with scientific and technical information through an automated system for the formation of integrated interstate information resources.

The general megatrends of a globalized society, which include demographic changes, urbanization on the basis of the fullest possible automation, comprise elements of uncertainty and cause insecurity of the future development of the economic structure, which can be overcome only through persistent creative searches and corresponding infrastructure transformations. The creative planning of strategic directions for future business development allows creating potential technological update scenarios and timely predicting possible obstacles to radical change. In this sense, institutional support for the renewed imperatives and private-public partnership program is extremely important in order to financially support creative initiatives that stimulate the innovative transformation of the industrial sector of the national economic system, contributing to economic growth, environmental responsibility principles, and social progress.

The growth of creative activity of enterprises requires the use of new organizational levers to stimulate productivity growth, develop a creative product

with high added value, and develop high-tech and knowledge-intensive industries (Paschenko, 2017). Unfortunately, the general trends in the development of the national industrial sector still cannot be considered sufficiently creative. According to the findings of the World Economic Forum-2018 in Davos, the levels of technological effectiveness and energy efficiency of the domestic industry significantly lag behind similar indicators of the European Community countries, while the share of hi-tech product in exports remains negligible (World Economic Forum®, 2018).

More than half of the cases of the technological innovation of industrial enterprises took place through the purchase of new equipment and software. The analysis of the dynamics of the regional distribution of industrial enterprises, which used the R&D results in the economic activity in 2013-2017, is presented in Table 3 and shows a general tendency of reduction in the number of industrial enterprises that created, used or distributed creative developments. In general, during the study period, the creative activity of enterprises decreased by almost a third, and downward processes are characteristic for almost all regions of Ukraine.

The worst indicators of dynamics are observed in the Luhansk region (reduction by 85.2%), which can be explained by the complex socio-economic

situation in the region over the hybrid aggression of the Russian Federation. Among the other outsiders, the worst dynamics are observed in Rivne (reduction by 79.5%), Chernivtsi (by 66.7%), and Donetsk (by 63.5%) regions. Three regions in 2017 slightly exceeded similar indicators in 2013, namely, Poltava (by 3.0%), Kharkiv (by 3.3%), Dnipropetrovsk (by 6.0%) regions, and sufficient growth rates of the use of R&D results in economic activity are observed only in Volyn (by 21.7%) and Vinnytsia (by 21.8%) regions.

At the same time, it should be noted that the downward trends of 2013-2017 are mainly determined by the general downturn in 2014-2015, after which positive trends began to recover in the national economy. Therefore, in comparison with the previous year, the majority of regions show an increase in the number of creative enterprises (somewhat significant). Leaders in this direction are Vinnytsia (increase by 45.7%) and Volyn (by 40.0%) regions. In 2017, activities above the average in Ukraine were demonstrated by enterprises in Kharkiv (28.1% of enterprises of the region), Ternopil (27.5%), Mykolaiv (26.9%) regions and the city of Kyiv (20.7%). At the same time, the lowest indicators are observed in Khmelnytskyi (5.7% of enterprises of the region), Rivne (5.9%), and Zakarpattia (9.0%) regions.

Table 3

The research activity of industrial enterprises of Ukraine in 2013-2017 by regions (according to data of the State Statistics Service of Ukraine, 2018)

Region	2013	2014	2015	2016	2017	2017/ 2016, %	2017/ 2013, %
Total for Ukraine	1715	1609	824	991	1159	117,0	67,6
Vinnytsia region	55	46	25	46	67	145,7	121,8
Volyn region	23	30	12	20	28	140,0	121,7
Dnipropetrovsk region	84	109	63	76	89	117,1	106,0
Donetsk region	85	45	28	30	31	105,1	36,5
Zhytomyr region	57	48	28	30	31	105,1	54,4
Transcarpathian region	15	16	14	13	12	92,3	80,0
Zaporizhzhia region	115	108	49	56	62	111,7	53,9
Ivano-Frankivsk region	87	99	27	32	36	114,3	41,4
Kyiv region	68	66	44	41	37	91,4	54,4
Kirovohrad region	46	49	25	31	37	119,4	80,4
Luhansk region	61	16	9	9	9	100,0	14,8
Lviv region	116	129	64	67	69	103,8	59,5
Mykolaiv region	81	67	29	31	32	104,9	39,5
Odesa region	69	67	36	36	36	100,0	52,2
Poltava region	33	33	30	32	34	106,3	103,0
Rivne region	39	45	13	11	8	76,2	20,5
Sumy region	32	46	23	24	24	102,1	75,0
Ternopil region	36	36	16	23	29	128,9	80,6
Kharkiv region	182	191	117	153	188	123,3	103,3
Kherson region	48	54	19	25	31	124,0	64,6
Khmelnyskyi region	58	38	18	24	29	123,4	50,0
Cherkasy region	47	37	25	29	32	112,3	68,1
Chernivtsi region	30	34	9	10	10	105,3	33,3
Chernihiv region	45	32	15	26	36	141,2	80,0
Kyiv	142	168	86	124	162	130,6	114,1

An analysis of the structural content of the activity of introducing the R&D results into practical activity characterizes its certain unevenness. In particular, the latest creative technologies were most actively implemented by enterprises in Rivne (19.1% out of all enterprises of the region), Kharkiv (18.7%), and Kirovohrad (14.7%) regions; the leaders of non-technological upgrade were innovation enterprises in the city of Kyiv (17.8% out of all enterprises), as well as Ivano-Frankivsk and Kyiv regions (15.1% each).

6. A creative initiative of economic entities

According to the sustainable development concept, the country's economic growth in the long run depends, first of all, on intensive factors of expanded reproduction, which necessarily requires the implementation of achievements of the domestic and world academic and applied science and technological re-equipment of production processes in the economic practice. A significant role in these processes belongs to the regulatory socio-economic policy, which mediates institutional functions of regulating the innovation development of industry and develops financial

mechanisms for industrial reorganization. However, the main lever of the transformational breakthrough of the economic system in a knowledge economy is the management of the development of the creative initiative of economic entities. The main result of the creative activity of industrial enterprises is the creation, promotion, and transfer of a new product. In total in 2017, 672 industry facilities introduced 2387 product innovations (in 2016 their number was 3136), 751 of which – innovative devices, equipment, machinery. Herewith, 80% of the products introduced were new for the relevant market (Table 4).

1831 new or improved technological processes were implemented (in 2016 – 1217). Leaders of introduction in 2016-2017 are enterprises in Kharkiv (12.6% of the total number of technological innovations in 2017 and 17.4% in 2016), Sumy (12.3% and 15.2% respectively), and Zaporizhzhia (7.8% and 9.4% respectively) regions. Industry leaders in 2017 became machine-building enterprises (18.8%), gas-extraction companies (17.7%), and manufactures of finished metal products (13.4%). In 2017, 611 new low-waste and/or resource-saving technologies were introduced in industry, while in 2016 – 458. Regional leaders were enterprises in Kharkiv

Table 4

A number of enterprises that implemented the R&D results in 2017, by regionality and types of innovations (according to data of the State Statistics Service of Ukraine, 2018)

Region	Total enterprises	Innovative products			Innovative processes	
		of all	new to the market	new for the enterprise	of all	low-waste, resource-saving
Total for Ukraine	672	358	90	302	456	198
Vinnitsia region	15	11	5	10	8	5
Volyn region	16	4	1	3	8	5
Dnipropetrovsk region	46	18	5	16	40	11
Donetsk region	22	12	3	11	19	11
Zhytomyr region	23	9	1	8	10	3
Transcarpathian region	12	4	–	4	7	6
Zaporizhzhia region	37	26	6	22	21	7
Ivano-Frankivsk region	23	15	–	15	16	10
Kyiv region	37	16	4	14	28	4
Kirovohrad region	15	12	2	10	9	6
Luhansk region	5	3	–	3	4	3
Lviv region	47	24	8	20	40	12
Mykolaiv region	16	8	3	5	8	2
Odesa region	35	15	3	13	28	22
Poltava region	23	15	1	14	13	2
Rivne region	7	3	–	3	6	2
Sumy region	18	17	8	12	8	5
Ternopil region	25	7	2	5	23	4
Kharkiv region	105	55	17	44	68	38
Kherson region	15	11	3	11	11	2
Khmelnitskyi region	8	3	–	3	6	2
Cherkasy region	31	15	3	13	19	7
Chernivtsi region	8	7	–	7	6	4
Chernihiv region	10	7	2	5	9	6
Kyiv	73	41	13	31	41	19

(16.6% of all innovative products), Zaporizhzhia (13.4%), and Lviv (10.3%) regions.

7. The cluster-innovative scenario of Ukraine's economic development

The latest trend in the development of creative entrepreneurship is its adaptation to the cluster-innovative scenario of the development of a knowledge economy, in particular, the creation on the basis of large industrial enterprises of the kind of accompanying companies whose main task is the activation of the R&D and the introduction of creative developments. The concept of a creative cluster is considered to be an integral system covering a complete chain of creative development: from the development of a fundamental scientific idea to the production and distribution of a finished innovative product (Shovkaljuk, 2016). It should be noted that the majority of domestic clusters are oriented towards traditional industries, while in the EU countries priority is given to innovative clusters that combine high-tech productions into high-tech industries, playing the role of points of creative growth in the economy (Alslev Christensen, zu Kocker, Lammer-Gamp, Thomsen, Olesen, 2011). Today in Ukraine, there is created a sufficient scientific and practical basis for the development of creative clusters in high-tech sectors. In particular, on the basis of existing industrial parks and technopolises, clusters of biotechnology, electronics, automobile industry etc. can actively develop. However, these processes are hampered by the lack of budget allocations, while in Great Britain, France, Germany, the share of budget investments in technology parks is 65-80%, in Belgium – almost 100% (Mazur, Shovkaljuk, 2015). In addition, an important push for technological modernization of production, investing in high-tech modern equipment in modern conditions is the potential opportunity to engage the enterprise in infrastructure development of the region, which became possible after the introduction of the ProZorro Unified Electronic Procurement System.

8. Investment maintenance of technological renovation of the economy

Traditionally, innovation costs in Ukraine are mostly financed by enterprises on their own. In 2017, only 8 enterprises were financed from the state budget, and 17 other industrial enterprises were financed from local budgets. Only 5 industrial enterprises received funds of domestic investors and 3 – foreign ones, 21 enterprises turned to lending services. Despite the lack of significant progress in the innovation activity of the domestic industry, the cost of technological upgrades is steadily increasing. In addition, there is a tendency of increasing R&D financing by leading industrial enterprises, as well as establishing the practice of their acquisition of high-

tech equipment and related technologies. Note that in 2016-2017, there was a restructuring of investment flows in domestic creative entrepreneurship, which manifested in reducing the costs of R&D intellectual components and reorientation of financial flows towards the acquisition of modern production equipment. The dynamics of the investment component of the creative activity of the domestic industrial sector in the regional section is shown in Table 5. As we see, the largest activity in the period of 2013-2017 was stably demonstrated by industrial enterprises in Zaporizhzhia, Dnipropetrovsk, Kharkiv regions. However, the dynamic analysis shows negative trends regarding the possibilities of investing in R&D, technological or product updates, which confirms our observations on the impact of general economic instability in the state on the willingness of enterprises to invest extra funds in the system technological upgrade of production. In order to implement their own creative and innovative programs in 2017, 170 enterprises acquired 832 new technologies (of which 129 – import), including 386 technologies (81 – import) were completed with the corresponding equipment. Moreover, 305 new technologies were the result of R&D, more than 100 received as an object of intellectual property rights, 10 – under national and international agreements for the acquisition of technology and know-how. In 2017, Ukraine's industrial enterprises also created and transferred 59 creative technological developments to other economic entities, of which two were exported.

The highest rates of decline in R&D financing by industrial enterprises are recorded in Luhansk (by 94.6% less than in 2013), Zhytomyr (by 85.8%), and Vinnytsia (by 85.6%) regions. At the same time, some regions show a certain investment “breakthrough”, increasing investment in creative development more than 4 times. Undeniable leaders of growth are Zaporizhzhia (4.7 times more than in 2013), Ternopil (4.5 times), Kirovohrad and Cherkasy (more than 4.4 times each) regions. Compared to 2016, the regional dynamics seems somewhat more balanced, with no significant fluctuations, but the general tendency to reduce investment in R&D and high-tech equipment is noticeable. The worst indicators of rates of change are observed in Ternopil (by 76.5% less than in 2016), Dnipropetrovsk (by 74.1%), and Vinnytsia (by 70.3%) regions. The leaders of growth are Zaporizhzhia (by 62.6% more than in 2016), Kirovohrad (by 59.6%), and Sumy (by 57.3%) regions.

Total investments in production, technological, and organisational update of domestic industrial enterprises amounted to more than 9.1 billion UAH in 2017, where 2.2 billion UAH (24.2%) was spent on the development of own and acquisition of foreign R&D and technology, 5.9 billion UAH (64.8%) was directed to the purchase of equipment and software, 1.1 billion UAH (11.3%) – to other works related

Table 5

Dynamics of industrial enterprises' expenditures on R&D in 2013-2017, million UAH
(according to data of the State Statistics Service of Ukraine, 2018)

Region	2013	2014	2015	2016	2017	2017/ 2016, %	2017/ 2013, %
Total for Ukraine	9562,6	7695,9	13813,7	11465,6	9117,5	79,5	95,3
Vinnitsia region	694,9	796,5	575,3	337,9	100,4	29,7	14,4
Volyn region	196,3	192,5	65,3	113,7	162,1	142,6	82,6
Dnipropetrovsk region	1057,8	825,2	7568,9	4348,1	1127,3	25,9	106,6
Donetsk region	930,7	516,1	827,6	776,5	725,3	93,4	77,9
Zhytomyr region	73,1	60,6	32,6	21,5	10,4	48,4	14,2
Transcarpathian region	25	16,6	22,5	24,4	26,2	107,6	104,8
Zaporizhzhia region	298,7	339,9	321	857,2	1393,4	162,6	466,5
Ivano-Frankivsk region	488,6	95,8	92,2	113,2	134,2	118,6	27,5
Kyiv region	104,4	122,1	144,8	217,3	289,7	133,3	277,5
Kirovohrad region	114,8	93	127,7	316,0	504,2	159,6	439,2
Luhansk region	372,5	35,1	24,3	22,3	20,2	90,8	5,4
Lviv region	257,1	219,7	277,8	294,0	310,1	105,5	120,6
Mykolaiv region	716,4	606,8	291,6	308,3	324,9	105,4	45,4
Odesa region	91	323,9	49,7	99,9	150,1	150,3	164,9
Poltava region	212,2	348,5	128,5	98,4	68,2	69,3	32,1
Rivne region	21,1	11,4	6,9	7,1	7,3	102,8	34,6
Sumy region	281,8	587,7	162,3	380,4	598,5	157,3	212,4
Ternopil region	24,2	57,4	14,6	62,2	109,7	176,5	453,3
Kharkiv region	642,3	711,1	667	779,0	890,9	114,4	138,7
Kherson region	161,4	90,5	70,1	63,1	56,1	88,9	34,8
Khmelnyskyi region	113,1	133,1	66,7	45,7	24,6	53,9	21,8
Cherkasy region	28,6	30,4	53,5	89,1	124,7	140,0	436,0
Chernivtsi region	51,3	68,8	18,8	22,5	26,1	116,3	50,9
Chernihiv region	134,1	106,4	35	53,4	71,7	134,4	53,5
Kyiv	1921,4	1306,8	2169	2015,1	1861,2	92,4	96,9

with the generation and transfer of knowledge (in particular, education, projecting, marketing). By types of economic activity, the leaders of investment in the scientific and technical upgrade of industrial enterprises in 2017 were the machinery and equipment industry (1.23 billion UAH or 13.5%) and the food industry (1.14 billion UAH or 12.6%).

9. Intellectual creative activities of Ukrainian economic entities

The largest volumes of intellectual creative activity and R&D in Ukraine traditionally belong to higher education and research establishments. Consequently, the implementation of a business creativitization policy requires enterprises to fully develop multifaceted links between science and industry and to take full advantage of opportunities of both scientific infrastructure and such modern tools as clusters and industrial-production zones. In general, over 34.4% of creative enterprises cooperated with scientific institutions, universities, research institutes in the period of 2013-2017. At the same time, in 2017, only 8.4% of such enterprises cooperated with scientific organizations, and their main partners were suppliers of equipment, materials, and information resources (including software).

In 2017, in the whole for Ukraine, 450 industrial enterprises were engaged in the sale of creative products, and the total sales amounted to 17.7 billion UAH. In 2016, these indicators were, respectively, 570 enterprises and 20.4 billion UAH, including 5.5 billion UAH were export deliveries (in 2016 – 10.8 billion UAH). About a third of domestic creative product belongs to software and high technology. The volume of the latest for the corresponding product market was 4.5 billion UAH, 41.5% of which was exported (in 2016, respectively, 7.3 billion UAH and 58.3%).

Creative developments of the domestic industry for 2013-2017 show the extraordinary potential of creative cooperation between business and science, which allows confidently asserting the possibility of the technological breakthrough of industrial high-tech and future leadership positions in the system of the sixth technological mode. Unfortunately, this indicator has been decreasing more than 2 times in Ukraine as a whole, while among the regions during this period only Cherkasy (with a slight increase by 2.9% compared to 2013), Chernihiv (growth of more than 2.3 times), and Zaporizhzhia (more than 2.4 times) regions have shown positive dynamics. The rest of Ukraine's regions in 2017 implemented their own creative product less than in 2013. Compared to 2016, the results are

somewhat better, however, in general in Ukraine and in most regions in 2017 there is still a decrease in sales by industrial enterprises of their own creative products. Industrial objects in Vinnytsia (by 40.5% more than in 2016), Chernihiv (by 156.5%), and Mykolaiv (by 170.8%) regions show the best results of growth.

10. Conclusions

Thus, the creative potential of the domestic economic system is determined by the ability to create high-tech competitive products based on the integrative cooperation of academic and applied science and economic complexes. In 2017, more than 1.8 thousand enterprises created and used the results of R&D, the latest technologies, and objects of intellectual property rights. By types of economic activity, the leaders were pharmaceutical companies,

manufacturers of vehicles, electronic and optical products, precise and extremely-precise equipment, and chemical industry enterprises. At the same time, there is a tendency of reduction in the number of enterprises that created creative development and implemented them into specific product innovations. Costs for creative projects are mostly financed by own funds of enterprises. Structural reconstruction of investment flows manifested itself in reducing the cost of intellectual components of the R&D in favour of the acquisition of modern production equipment. Consequently, despite significant problems and complexities, the existing creative potential of the domestic economy allows asserting the possibility of implementing a technological breakthrough of industrial high-tech in Ukraine, which will contribute to a faster integration of the national economic system into the world creative community.

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DEVELOPMENT OF PROVIDING PUBLIC SERVICES IN THE ECONOMY AS A GUARANTEE OF EFFICIENCY IN EUROPEAN INTEGRATION PROCESSES

Nataliia Berlach¹, Halyna Striashko²

Abstract. The transitional period, in which most of European and the world countries today are, is in need of renewal and continuity of integration processes in vital areas to which the economic sphere itself belongs. Ensuring the introduction of universally accepted standards for the provision of public services in the economy into the practice of public administration actors is today a priority task of absolutely all countries that have declared in their Basic Law the principles of the rule of law and the rule by law, the recognition of a person, its life and health as the highest value. Significant obstacles to the gradual and systematic nature of such activities, determined by the aggravation of social tension in society, external aggression, the peculiarities of domestic doctrine and legislation, which are formed using well-defined concepts, at the same time, today contain ambiguous provisions on content, in particular, the notion of public services, their varieties, procedures for their provision, performance indicators. The abovementioned causes the necessity to search for the best ways to eliminate the above inconsistencies, which lead to real inhibition of activities as to ensure the quality provision of public services in the economic sphere. Only the cautious implementation of the principles and criteria for evaluating the provision of public services, as implemented in foreign countries (Great Britain, Germany, the USA, France, Hungary, the Baltic States etc.), should take into account the peculiarities of social relations that have developed in a specific state, in particular, in Ukraine one should take into account the complications associated with the current crisis in the political and international situation and, first of all, the urgent need for service orientation of public administration bodies in the economy and the financial sphere. At the same time, the presence of such features should not negatively affect the principle of gradualness and the continuity of the implementation of international standards in this area. *Methodology.* The solution of the set purpose is realized using the cognitive potential of the system of philosophical, general scientific and special methods. The comparative legal method is dominant, which allowed determining the development directions of domestic statutory enactments in order to bring them in line with the generally accepted standards for the provision of public services, the experience of highly developed economies. Methods of grammatical review and interpretation of legal norms have contributed to identifying gaps and other shortcomings in legislation that regulates the provision of public services in the economy, developing proposals for its improvement. *Practical implications.* The introduction of effective, timely, and consecutive steps to ensure the provision of quality public services in the economy, based on the unification of the standards of developed countries in the world, which will mean the implementation of an important step towards the global economic crisis recovery. Moreover, an example of the development of public service functions in European countries will demonstrate real achievements of an important task of reformation in countries with less developed democracy and insufficiently high investment climate index.

Key words: public service, administrative service, efficiency of service provision in the economy, quality of service provision, guarantees of effectiveness of public administration of the economy.

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1. Introduction

The key to the existence of a successful and socially oriented society is to direct the activities of executive authorities and local self-government bodies to ensure the maximum promotion of legal economic activity of subjects of various forms of ownership. The achievement of such a purpose is directly related today with the stability and quality of public services provided by the public administration in all countries of the world. National scientific doctrines contain provisions on the state and improvement of efficiency in this area. However, one cannot but recognize the significant differences in the indicators of the state and quality of public services provided, especially in the economic field, in European countries, which is associated with different historical conditions of their formation and development and the laws of development of their economic systems.

It is also worth agreeing with the observations of certain scholars that public services in the field of the economy are considered in the scientific sources of the post-Soviet camp (mostly legal) primarily as a process of servicing by individual actors, first of all by power entities (Tylchuk, 2011) while in the world such services are interpreted as a result of serving the society through both public services and other instruments of state regulation (monetary policy, taxation policy, etc.). The above provisions actualize the necessity for the scientific and practical search for ways to increase the efficiency of providing public and not just administrative services in the economy in the unity of the purpose of their development, taking into account national characteristics and integration aspirations, by unifying procedural aspects. Herewith, the study of the positive experience of individual countries in providing this direction of activities in relation to the prospects for its expansion becomes of special significance.

2. Public service as a form of public administration activities to regulate economic relations

In the USA, Canada, Singapore, Korea, Malaysia, Hungary, electronic governance is being implemented within the framework of the society's information development strategy, which is based on the coordination of priorities, circumstances, and resources available. Such e-government is primarily aimed at providing electronic access to the most commonly used public services, developed by the United Nations methodology, which involves four phases.

Thus, Singapore became the first country where in 1999 a large-scale government portal eCitizen Centre (www.ecitizen.gov.sg) was created. The portal supports several sections: business, defence, education, employment, healthcare, housing, law and order, and more. The Estonian government,

in the framework of the implementation of the concept of "e-government", created and launched in June 2001 an Internet portal "Today I Decide" (Tana otsustan mina), through which any resident of the republic can take part in the governance – to express their opinion on what is happening in the country, to propose amendments to bills etc. In the USA, where ideas about the need to develop e-government were first announced at the state level in 1998, the launch of the firstgov.gov portal (now – usa.gov) was the result. Today, this system covers almost 80% of all institutions. Also in the USA, there is a nationwide program "First Priority – Customers", which involves monitoring the quality of services provided and studying consumer expectations. In Hungary, in 2001, an e-government program was introduced directed to integrate information technology development strategies and projects across sectors and government institutions to provide citizens with high-quality services. Today, the Office of the authorized minister coordinates 36 programs that are implemented in 17 state institutions, which ensures the transparency of governance and the quality of service provision. In Malaysia, reforms in implementing the system of electronic public services are being introduced by the Administrative Modernization & Management Planning Unit under the Prime Minister Department (Tyshchenko, 2010). The objectives of these reforms are to ensure effective intra- and interdepartmental coordination and provide easier access to public services for economic entities and citizens. The process of improving the provision of public services is undoubtedly linked to adhering to the principle of customer feedback.

Regarding the current situation in Ukraine, scholars and government officials state that the main challenge for the development of e-government in the state is to ensure the electronic interaction of state information resources. Almost every state body faces the need for access to one or another state register or database. Moreover, as the researchers rightly point out, such access is an important means to ensure the quality of the tasks performed by authorized agents, including in the field of economic security (Pashko, Tylchuk, Kotuha, 2018).

E-procurement, an electronic declaration system, common customs territory etc., need integration with many state registries and databases for their full functioning. The lack of electronic interaction of state systems does not make it possible to simplify the procedure for providing services and to comply with the requirements of the Law of Ukraine "On Administrative Services" regarding the prohibition on requiring from the subjects information or data that are in other authorities, that is, have already been provided by citizens earlier (Resolution of the Cabinet of Ministers of Ukraine "On Approval of the Concept for the Development

of the Digital Economy and Society of Ukraine for 2018–2020 and Approval of the Action Plan for its Implementation” as of January 17, 2018, № 67-p).

As Ya. Kail rightly points out, the analysis of foreign experience of countries such as Great Britain, the USA, Australia, Canada, Germany, Hungary, Poland, China, South Korea, the Netherlands, Brazil allowed identifying the main approaches and principles used in the world practice of the system of providing public services in the economy; these processes are carried out within the framework of administrative reforms, the main directions of which are: the provision of state and municipal services on the basis of public administration standards; implementation of reforms with widespread use of information and communication technologies, improvement of the provision of public services using the principle of consumer feedback over a long period of time. The ideology of this strategy is to ensure greater transparency of the public sector for consumers and improve the quality and availability of public services and information about them (Kail, 2010).

As an example of the development of the use of information technology for providing services in the economy that greatly simplify access to such services, it is appropriate to consider activities of separate units of the State Fiscal Service of Ukraine that presented an innovative project “Check and Drink”. Within this project, software is proposed developed as a computer program, so all smartphone’s owners can install this application. The Application enables checking the availability of enterprises’ licenses for the production and sale of alcohol, as well as licenses for the sale of tobacco products in a particular region. Also, this Application simplifies access to information about the business entity and its production quality and is simultaneously aimed at preventing the sale of excisable products to minors. Each citizen can freely use the program and notify about violations, including on the part of representatives of fiscal bodies. Users of the application can make a complaint about a violation of legislation by company or enterprise, namely, inform about problems with a fiscal check, the sale of counterfeit products, the sale of products to minors, and other violations. The complaint is immediately mailed to the body of the State Fiscal Service of Ukraine and will be considered in the nearest future. It is envisaged that the program will enable creating equal business conditions, make the Odesa region more attractive for tourists, and increase state budget revenues from the sale of the excisable group of goods (Fighting the shadow turnover of the excisable group of goods can be using a smartphone).

It should be noted that the European Union in 1992 introduced the Anglo-Saxon concept “generic service” that means a minimal service of the established quality which is provided to any user by an affordable price. In addition to the concept “generic service” legislation of the European Union also includes a concept

of “services provided under the authority of state bodies” enshrined in the General Agreement on Trade in Services. These services, according to the specified Agreement, are defined as “any services provided neither on a commercial basis nor on competition among these services’ suppliers” (Simpson, 2004). Therefore, in the European Union, in addition to paid services, there are a number of services provided by the state free of charge and determined by the state in special orders.

3. Criteria for distinguishing public services in order to satisfy public interest in the economy

The concept “public services” has its characteristic features, which can be as common for several countries, so have some differences taking into account peculiarities of the interior of one or another country. In France, public services are characterised by the main four criteria: satisfaction of public interest, continuity, adaptability, equal access for everyone to services (Tykhomyrov, 2007), which can be used also in the process of analysing this category in other world countries, taking into consideration general trend of countries to satisfy human needs and direction to the improvement of quality of public services provided. We consider it appropriate to reveal the content of these criteria.

Continuity as the next criterion of public services is not less important. This criterion in France is represented in the following forms: liability in the event of a break in the provision of a public service; application of unpredictability theory; the right to strike of public service agents within the established limits, which should be preceded by corresponding notice in five days; forced engagement of personnel to perform work. Adaptability is manifested in the fact that public authority when taking the obligation of direct management of providing a public service, assigns it to those agents that are able to adapt services to generally recognized needs that exist within the country at the moment. Such a criterion is also quite important since the ability of the government to adequately react to urgent necessities of society is one of the preconditions for normal and economically and politically stable life of the country.

Equal access for all to public service should be understood as the impossibility to establish any discriminatory restrictions in relation to citizens consuming public services. Any restriction, if the need for its existence appears, should be general in nature and apply to all without exception. Equal access to public services is the reverse side of the rule of equality of all before public duties (Tykhomyrov, 2007).

The Basic Law of the Federal Republic of Germany as of 23 May 1949 provides for the possibility of transferring the function of public authorities to provide services to private organizations, keeping control over this

activity and the possibility of its legislative regulation (Basic Law of the Federal Republic of Germany, 1949). The French Constitution also provides for the possibility of delegating the functions of providing services to private organizations through the issuance of relevant regulations (The Constitution of France, 1958). In the administrative system of France, there are administrative institutions that are more or less consistent with our idea of the department. One of the types of such institutions is the so-called services of national competence (services à compétence nationale – SCN).

The establishment of such services, in turn, was envisaged by Decree No. 97-463 as of May 9, 1997, and the services themselves were legally removed from the central administration. The difference between these services from the central administration lies in the fact that they do not participate in the formation of public policy, do not control its implementation, and act solely as its technical tool. In addition to the services of national competence in France, there are a number of independent administrative authorities (autorités administratives indépendantes – AAI), although they are government agencies, they have received full autonomy from the central administration in accordance with the law. As a rule, such independent administrative authorities may be called bureaus, commissions, councils, supreme councils, mediators, intermediaries (Kozyrin, 1996).

At the federation level in the USA, the system of executive authorities consists of the President, departments, government corporations, independent agencies, and other institutions. The legislation stipulates that among the abovementioned bodies, administrative bodies are only those that do not carry out military or foreign-policy functions and have the authority to make decisions on the legal status of individuals, that is, to decide on their rights and obligations. Administrative management implies “not just execution but management mainly through regulation, carried out with the help of the delegated to administration rule-making and judicial powers” (Kozyrin, 1998). Article 82 of the Spanish Constitution regulates the procedure for the delegation of functions of the state through the adoption of a special law, indicating the terms of delegation, its boundaries and objectives, principles and criteria. For this purpose, the Constitution stipulates that “general Cortes may delegate powers to the government to issue statutory enactments that have the force of law on certain matters, except as provided for in this Constitution” (The Spanish Constitution, 1978).

Consideration of provisions of some statutory enactments of foreign countries can serve as an impetus for Ukraine to create a similar system of regulation of the sphere of providing public services, structure and organization of public administration bodies. Alongside with that, it should be noted that in the event of a decision on the feasibility of introducing

such an experience in Ukraine, it is necessary to conduct a balanced analysis of the possibilities of implementing this experience, in whole or in part, as well as the usefulness of taking into account the provisions of the legislation of Spain regarding the timely delegation of functions (Manychil, 2012).

4. Conclusions

The analysis of scientific and normative sources for the provision of public services in the economy allows pointing out that the well-considered implementation of the principles and criteria for evaluating the provision of public services in foreign countries (Great Britain, Germany, the USA, France, Hungary etc.) should include consideration of the peculiarities of social relations developed in a particular state, in particular, as exemplified by Ukraine (one should take into account the complications associated with the current crisis in the political and international situation). At the same time, the presence of such features should not negatively affect the principle of gradualness and continuity of the implementation of international standards in this area.

The foreign experience of increasing the efficiency of providing public services in the economy indicates that these issues are most effectively solved within the framework of special programs for the development of public administration of the relevant area, in terms of the recognition and gradual implementation of one of the main tasks – raising the standards of public services, improving their organization and distribution, promoting entities with significant achievements in the provision of public services, in particular, in the economy. Investing in such projects may involve associations of business entities of individual regions, subject to the principles of transparency and voluntary.

The directions of improvement of the domestic legislation concerning the provision of public services taking into account foreign standards are singled out: a) the development of the theory of public services, that is, the consolidation of conceptual and categorical provisions, principles of public services, criteria for the quality of their provision etc. in the Concept of public services; b) unification of legal regulation of administrative procedures by adopting the relevant legal act; c) consolidation in legal acts of types of legal guarantees of ensuring the legality of the provision of public services: control over the activities of public administration entities in providing public services; the prosecution of public servants for refusing to provide a certain type of public service, etc.; d) bringing in line with European experience requirements for adoption, amendment, cancellation, and appeal of individual administrative acts that are the result of providing public services; e) further study of the role of discretion of public service providers and limitation of abuse of powers in the process of their implementation.

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MARKET NICHE AS A METHOD OF BRAND PROMOTION

Olena Boienko¹, Oleksii Susidenko²

Abstract. *The purpose* of the paper is to prove that market niche is one of the methods of brand promotion. *Methodology.* To do research, we need to use theoretical and empirical methods. Analysing the Interbrand Ranking, we used methods of comparison, concretization, and generalization. Brand value trend was studied using the method of graphics modelling. To study the definition of “market niche,” there were used methods of comparison, generalization, and synthesis thanks to that we defined the special features of this concept. *Results.* The brand is a relatively new concept, which was developed in the second part of the 20th century. According to the results of this ranking in 2016, the most successful brands were Apple, Google, and Coca-Cola. These brands have the long history and their own experience of doing business in the scale of the global market. One reason for their success is the right selection of a market niche. It was defined that the market niche might be characterized by the next features: highly individual needs and requirements for satisfying which it is necessary to have a range of complement goods and services; stable market potential; weak competitors. There were interviewed several chief-executives of big Ukrainian companies and analysed the most successful and profitable market niches for today. These are: Internet resources; big data; online courses; delivery service; wearable gadget; 3D-printing; robots; fuel cells and batteries; commercial property in regions; smart materials; auto components; health care; recycling; alternative energetics; space; escort of elderly people; franchising business; agriculture; geological prospecting and green projects. *Practical implementations.* We defined that the brand needs to make six main steps for entering the new market. Firstly, it is necessary to define own niche. Next step is to analyse how external factors influence the brand, which operates in the chosen niche. After this business should analyse opportunities of the brand in this niche, later it is necessary to carry out a SWOT analysis of brand operating in this niche and make the prognosis of the brand operation in this niche and finally prepare the rating of chosen market niches. *Value/originality.* The results of made investigation might be used by entrepreneurs who are going to set up business because according to the suggested analysis we can see the most profitable niches for coming 10 years.

Key words: market niche, non-material asset, brand, marketing tools, competitiveness, range of goods.

JEL Classification: M31, M37, O34

1. Introduction

The modern market economy is characterized by the growing role of non-material assets in a business balance. In addition, a strategic success of the business is influenced by interrelation with customers, brand management, and marketing knowledge. A wide range of goods and services in modern markets causes the necessity of solving the problem of competitiveness.

Market conjuncture is characterized by markets fragmentation, high level of competitiveness, and constantly growing requirements of customers to goods quality today. In these conditions, business ought to change, offer new, high-quality goods and services by more beneficial price than competitors do.

Today practice shows that because of the high level of market fragmentation general marketing tools become

less effective and cause growing competitiveness. It is necessary to suggest new ideas, which may make the higher profit compared with traditional marketing tools and approaches.

Analysis of modern marketing approaches shows that one of the ways to be ahead of competitors is to find new market niches. In this case, the market niche must be not only a new segment where the business operates, but it also ought to be the potential for growth, the suggestion of new ideas and knowledge that can stimulate demand due to which business enters the new markets, goes ahead of competitors and makes a higher profit. Searching new market niches is important not only for the big business in general but for a brand too, which is the part of non-material assets of this business.

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2. Investigation methodology and literature review

In the last publications, we made the conclusion that the brand is a relatively new phenomenon. The brand concept was developed in the second part of the twentieth century. The huge interest for our investigation has publications of D. Aaker, who is a marketing specialist with a focus on the brand strategy. The most interesting for us are these works: "Building Strong Brands" (1996), "Managing Brand Equity" (1991), "Aaker on Branding: 20 Principles That Drive Success" (2014), "Brand Relevance: Making Competitors Irrelevant" (2011). In addition, we analysed the works of J. Liesio, P. Mild, A. Salo (2006) and A. Hines (2008). Exceptional interest works of A. Laut (2011) and B. Tokarev (2012) have because they are devoted to brand success in the frame of searching market niche.

It was made the deep analysis of works mentioned above, although they do not give answers to some questions. They do not give practical bits of advice on how the brand enters the new market through a particular niche. This issue causes the aim of our paper.

In our investigation, we are trying to prove that the market niche is one of the methods of brand promotion. Thus, to do research we need to use theoretical and empirical methods. Analysing the Interbrand Ranking, we used methods of comparison, concretization, and generalization. Brand value trend was studied using the method of graphics modelling. To study the definition of

"market niche," there were used methods of comparison, generalization, and synthesis thanks to that we defined the special features of this concept. The most profitable market niches were defined by the method of a survey of chief executives of successful Ukrainian enterprises what allowed us to predict the most profitable niches for coming 10 years. By the method of generalization, we defined factors which explain how the technology brand influences customers' behaviour.

3. World-known and the most successful brands

The history of the development of the modern global economy shows the examples of successful conquests of a market by brands, which are known now as famous global ones.

According to the Interbrand Ranking 2016, the first position the Apple brand occupies, Google is the second, and Coca-Cola is the third one (Table 1).

These are the most powerful, famous brands, which have a long history of development and success, and their strategies for entering the new market niches.

For our investigation, it is interesting to review the trend of these brands value (Figure 1).

Given figure allows making such conclusions. Brands value shows growth from 2010 to 2016. The sharpest positive dynamics characterises Apple's value. This indicator is continuously growing and in 2016 it riches almost 180 billion USD. As to Google and Coca-Cola,

Table 1

The most successful brands in 2016

Brand name	Description	Brand value, million USD	Growth rate, %
Apple	Technology brand that uses innovation in producing its gadgets and software platforms	178119	5
Google	Technology brand organising the world's information and making it globally accessible	133252	11
Coca-Cola	Beverage brand which has more than other 500 brands	73102	-7

Source: developed by the author based on the Best Global Brands 2016

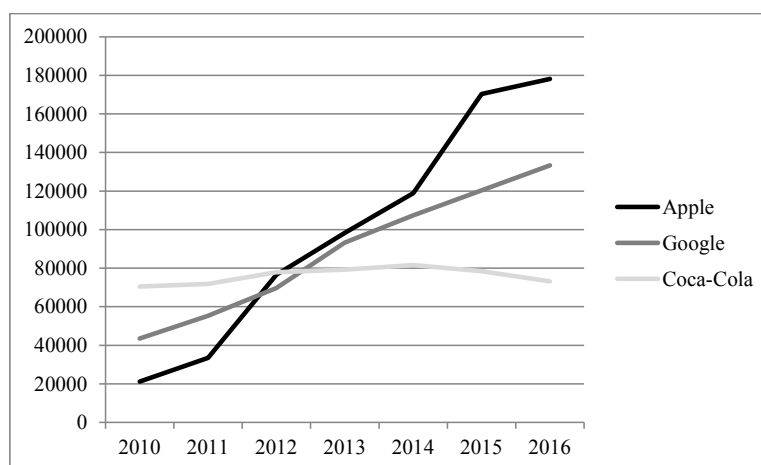


Figure 1. Brand value trend in 2010-2016, million USD

Source: developed by the author based on Table 1

these brands represent positive dynamics too, but it is not so sharp, it is smoother, and in 2016, Google's value is about 130 billion USD and Coca-Cola's is more than 70 billion USD.

The experience of the given examples is significant. Such success may be possible only if these brands use professional marketing tools, take into consideration customers' demand and study new opportunities and market niches. It is necessary to note that there is no ideal marketing mix for all brands and companies. Although, defining the own marketing niche is an essential step for entering the global market.

4. Market niche: approaches to understanding

The definition of "market niche" which is used in the modern economic literature varies significantly. In general, it means the position of the brand in a particular market. Modern marketing does not give single-valued definition. For instance, M. Vaigel (Vaigel, 2004) defines the following variants of using this concept:

identification of concepts of market niche and target market segment;
definition of a small market part, which corresponds to the competitive advantages of the brand;
identification of an unusual situation in the market when the brand satisfies a new requirement that had not been satisfied yet.

When analysing scientific approaches to understanding the concept of a marketing niche, it is important to pay attention to Philip Kotler's vision (Kotler, 2014). In his opinion, the market niche is the sphere of customers' needs thanks to satisfying which the company makes a profit.

Very often modern literature argues that the market niche is a target market, market segment, and marketing opportunity. In this investigation, it is used the definition of M. Vaigel (Vaigel, 2004), who argues that "market niche is free from intensive competition small part of the market which consists of consumers with similar needs which cannot be satisfied fully by existing market products and satisfaction of what can be possible with higher rate of return".

According to our analysis, several features characterise the market niche:

highly individual needs and requirements, for satisfying which it is necessary to have a range of complement goods and services;
stable market potential;
weak competitors.

The market niche is a result of the activity of players in the particular market. So, an appearance of the market niche can be caused by developing different situations in the market. Here we are giving some examples.

Target marketing. It is the orientation on the small part of the market, which is not interesting for large companies (they do not want to satisfy needs of

customers in this market), and there is a weak press of competitors on this market.

The unique situation in the market. It is the particular case of special conditions and circumstances of activity (for example, the activity of public bodies that causes the appearance of unique needs of customers that can't be satisfied thanks to existing goods and services.

Clustered marketing. It is the set of loyal customers (focus group) who are interested in receiving a wide range of products and services in a particular place (as an example, one producer, dealer, etc.).

Horizontal marketing. It is widening the range of goods and services oriented on one target segment.

Vertical marketing. It is searching ways of a particular product selling together with complementary products for different groups of customers (on several market segments in one time).

Before exploring the market niche, it is necessary to find a place in the market for your knowledge, skills, and competencies. Many brands have success not thanks to new, innovative products but new ways of entering the market. Today in modern marketing, it is important to use new technologies not only in producing goods but also in ways of cooperating with customers. That is why one of the ways of defining a market niche is innovation in the sphere of selling products and services.

Very often brands that have a small part of the market can be more profitable than the market on an average. The secret of the brand's success, which operates in the market niche, is better concentration on the satisfaction of customers' needs than competitors'. As a result, the company can set a premium price by providing higher compared with competitors' value.

According to the definition of market niche given by M. Vaigel (Vaigel, 2004) and analysed in this paper, we defined the next steps of entering the new market by the brand:

1. Defining criteria for choosing a niche.
2. Analysing the influence of the external environment on the brand operating in the particular niche.
3. Examining opportunities for the brand in the niche.
4. A SWOT analysis of brand operating in the niche.
5. Forecasting of the brand operation in the niche.
6. Preparing the rating of chosen marketing niches.

Time is running, and the needs and requirements of customers are being changed. In these conditions, marketing strategies of brands are being changed too. We made an interview with several chief executives of big Ukrainian companies and prepared the list of modern market niches, which will be profitable next ten years according to the results of the interview (Table 2).

According to the given list, technology market niches are the most popular today. They are the most profitable and perspective for investors.

Table 2

The most profitable market niches today

Nº	Market niche	Description
1	Mobile payments	Technologies and applications for using a smartphone for payments
2	Internet resources	Technologies that exclude the human participation in repeating operations
3	Big data	Searching hide interrelations in information space
4	Online courses	Education online
5	Delivery service	Food sale online
6	Wearable gadget	Smart watches, glasses, bracelets, etc.
7	3D-printing	Stereo lithography, layer-by-layer fusing, selective laser sintering, 3D printing
8	Robots	Personal drone, industrial robots, appliances
9	Fuel cells and batteries	New, more powerful sources of power
10	Commercial property in regions	Shopping centres, offices, stock in cities with population less than one million
11	Smart materials	Fabrics, materials with unique features
12	Auto components	Producing parts of cars
13	Health care	Private clinics, treatment on the base of the human genome
14	Recycling	Recycling management
15	Alternative energetics	Refusal from network electronic energy in favour of small generation
16	Space	Photos of space, satellites creation
17	Escort of elderly people	Internet-projects, exoskeletons
18	Franchising business	Restaurants "Mafia", Good Beer, Everest Mining Company, Indigo Mental Club, Small Fruit, etc.
19	Agriculture	Feed producing, dairy cattle breeding
20	Geological prospecting, green projects	Green-projects in the sphere of hydrocarbons and precious metals extracting

Source: developed by the author based on the results of survey

5. Technology brands as examples of success

According to the Interbrand Ranking 2016 (Best Global Brands, 2016), 13 technology brands show more than 30% of total value, making technology sector the leader. Modern technology brands have gone beyond launching a successful product or service – they have delivered on the true measure of innovation: the ability to change the perception of customers. Capacity to influence behaviour relies not only on an innovative proposition but also on assessing the value or benefit of that switch to the market.

Here we give the list of factors that explain how technology brands influence customers' behaviour.

Broad addressable markets. It is expected that more than 70% of the world's population will have mobile phones by the end of 2018. Thus, if you are a gadget producer, microchip maker or internet provider, the market size is enormous. In addition, there are many technology brands that get benefit from a low barrier to entry, especially in comparison with luxury and automotive spheres.

The accessibility of technology brands on the consumer side stimulates the growth on the business side, as the number of connected users contributes to massive data pool and cloud. For instance, so famous technology brand like Intel has kept well afloat in the face of waning PC sales across the industry by refocusing on innovation.

The destination for intensive growth. Technology brands do not only benefit from wide markets but an ability to develop more rapidly than others. Innovations that the top technology brands have accumulated, along

with the relative lack of manufacturer regulation give them an opportunity to reinvent their goods or services very easily. Rearrangements to software can happen quickly, requiring minimal input from their customer bases, testing and iterating ideas is core to the vision of these brands.

Built-in flexibility gives technology brands the opportunity to turn into different goods or service categories as they evolve along with customers' wishes and expectations. Here we can provide an example like Uber, which has evolved from a car app into a provider of some services. Besides, these up-to-date technology brands are not just catering to customers' needs but raising the bar for what's possible, not just meeting but managing the speed of life.

Following the famous leaders. Brands could follow the leaders by evolving marketing strategies. For example, Adobe sees how people act at work and home, and it suggests an expanded service portfolio that creates the value chain in the business sector and gets closer to the customer through mobile applications. Few have leveraged their platforms, like Amazon. What was designed as a shopping platform now powers content and the lessons learned in building that platform gave way to a successful cloud service business.

The success of these businesses and the strength of their brands have driven growth beyond the technology sphere. Brands in all sectors in the modern economy are including technology brands as business partners or platforms.

Operating for prospects. The most famous technology brands have become perceptive of marketers by using

the equity built into their brands to allude at what lies beyond their goods and services. Many have seeded their next big bets, preparing customers for what may be next or positioning themselves as seers.

As technology becomes more a mirror of the self, events will continue to develop around automation. For example, Lenovo has moved beyond the ICT world with a slew of new smart gadget, from watches to laptops, powered by the innovation cloud platform that the brand itself is helping to develop.

Information technologies extend to our thinking with advancements in human-made intelligence. The most famous technology brands use human-made intelligence to develop deeper interface dependencies, for instance, Amazon with Alexa, Apple with Siri, etc. Nowadays, human-made intelligence is getting smarter, more cautionary, and anthropomorphic, with the ability to develop more close relationships with customers.

Human-made intelligence has the potential to not only enhance individuals' lives but to advance the capabilities of business, as we have seen with the continued applications of IBM's software.

The concept of "privacy exchange", trading personal information for perceived value – may also have a dividing effect on the amount of data people show, which will allow human-made intelligence to become more nuanced while putting pressure on more brands to develop human-made intelligence as a part of their ecosystems.

After finding a business idea, it is important to define the market niche. As we discussed, the market niche very often is free of competitors and guarantees financial success. The idea may be brilliant, although if it does not correspond to the chosen market niche, the business might fail.

We try to give an example. There is the idea to set up business related with growing and selling healthy food because the increasing income of population and a tendency to the healthy style of living causes the demand for these goods. However, if we choose the countryside as the market niche business would not be successful because population do not have high income and have own fruits and vegetables.

In the modern conditions of competition, it is important to find the market niche, which is free from competitors. Choosing the market niche, it is necessary to understand the prospects of market share development. It means that market niche must be in-demand not only today but also tomorrow and in the future. In other words, the particular business-idea must be unique for this market niche. In addition, it means that in this market niche there are no competitors who can satisfy the needs of customers and ways of satisfaction must correspond to their psychical, cultural, and economic features.

It is necessary to add the importance of barriers to entering the market. Here we define these market

barriers, which prevent competitors from entering the market: exclusive contracts, licenses, patents, and know-how. The brand can choose several market niches; however, for every niche, it has to prepare different strategies.

Experts of brand-management need to find the niche at which the brand would be oriented in the future. If the niche is interesting, business begins to give information about the brand to final customers. Although, it is necessary to investigate whether the customers need it. Such investigations provide an opportunity to find out strengths and weaknesses of the brand.

6. Conclusions

Our investigation allows making such a conclusion. Today's economy is characterized by the increasing role of non-material assets in a balance of companies. Additionally, the success of the company is caused by relations with customers and brand management.

There were analysed several business strategies of famous brands and concluded that if you want to have success, you need to find the own market niches. In the article, we analysed the experience of Apple, Google, and Coca-Cola brands which were the most successful in 2016. The experience of these brands is significant. Such success may be possible only if these brands use professional marketing tools and their niches.

We analysed several approaches to understanding the definition of market niche and defined some variants of using this concept: identification of concepts of market niche and target market segment; definition of a small market part, which corresponds to competitive advantages of the brand; identification of a special situation in the market when the name satisfies a new requirement that had not been satisfied yet.

According to made analysis, the market niche is characterised by these features: highly individual needs and demands for satisfying which it is necessary to have a range of complement goods and services; stable market potential; weak competitors.

The appearance of the market niche is caused by developing different situations in the market: target marketing; the unusual situation in the market; clustered marketing; horizontal marketing and vertical marketing.

There were defined the next steps of entering the new market by the brand: defining criteria for choosing a niche; analysing the influence of external environment on the brand operating in the particular niche; analysing opportunities of the brand in the niche; SWOT analysis of brand working in the niche; forecasting of the brand operation in the niche; preparing the rating of chosen marketing niches.

We made a list of market niches, which will be successful in the coming ten years. These are: Internet resources: big data; online courses; delivery service;

and green projects. It was concluded that technology market niches are the most popular today. It is caused by the given factors: broad addressable markets; the destination for accelerated growth; following the famous leaders and operating for prospects.

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ANTIENTROPIC TOOLS FOR PROVIDING SUSTAINABLE BALANCED REGIONAL DEVELOPMENT

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Abstract. The *purpose* of the paper is to substantiate antientropic tools for managing processes of balanced sustainable development of regions. It is shown that one of the most complicated and important contradictions in the system of territorial administration is the contradiction between the development and sustainability of such a complex multidimensional system as a region. And, obviously, relevant scientific task arises as regards to the development of modern approaches to the justification of instruments of dialectical “removal” of the specified contradiction. It is revealed that an optimal methodological step will be the introduction of antientropic approach in the processes of realization of balanced sustainable regional development. *Methodology.* The survey is based on the actual methodological complex that is characterised by integrity and, including classical postulates which provide its verification, it has innovative aspects. The mentioned approach is based on systems theory that is characterised today by worldwide-recognized universal cognitive tools and antientropic approach, which is in focus of contemporary interdisciplinary studies. *Results.* Modern approaches to phenomena of entropy are generalized; antientropic paradigm of management of processes of introducing modern model of balanced development at the regional level are substantiated; on the basis of antientropic paradigm, there is proposed a set of approaches to managing organizational processes in the system of local self-government, which provides for permanent dynamic multi-vector interaction of systems (organizations) of different levels and different environments, also it is used for ensuring coherent dissipative activity. Based on the concept of adaptive management, a complex of tools for managing organizational processes in the system of subjects of providing sustainable balanced regional development is elaborated. *Practical implications.* Proposals on the application of antientropic tools for providing sustainable balanced development of regions can be used by executive authorities and local self-government bodies in the process of formation and implementation of state regional policy, first of all, the Ministry of Regional Development, Construction, Housing and Communal Services of Ukraine during the formation of the State Sustainable Development Strategy and action plan for its implementation, as well as regional administration bodies when designing regional development strategies and implementing appropriate measures, selecting programs (projects) of regional development. Key scientific achievements of this paper also can be used in the process of drafting legal acts, elaborating the Administrative Reform Concept, and implementing other state program documents. *Value/originality.* Tools that are proposed in this research for introducing the model of balanced sustainable regional development on the basis of antientropic paradigm include the following: maintenance of an open state of the system; use of the principle of feed-forward control; realization of the principle of diversity. The presented complex of approaches ensures continuous dynamic multi-vector interaction of systems (organizations) of different levels and different environments.

Key words: investments, financing, public administration.

JEL Classification: D78, H70, R58

1. Introduction

As it is noted in a number of documents determining vectors of state regional policy, the current state of regional development is characterised, in particular, by the following: “long-lasting formation of inefficient system of public administration of regional development and non-

transparent financing mechanism of regional development, lack of clearly defined state policy in the sphere of regional development...” (Postanova KMU, 2014).

Reflected in modern publications imperatives of research on the management of sustainable development of regions allow arguing that one of the most complicated

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and important contradictions in the administrative system is the contradiction between development and sustainability of such a complex multidimensional system as a region. And, obviously, relevant scientific task arises as regards to the development of modern approaches to the justification of instruments of dialectical “removal” of the specified contradiction.

Therefore, it seems relevant to develop a methodological complex that would be characterised by integrity and, including classical postulates which provide its verification, would have innovative aspects. In our deep conviction, the mentioned approach should be based on systems theory, which is characterised today by worldwide-recognized universal cognitive tools, and antientropic approach, which is in focus of contemporary interdisciplinary studies.

The purpose of the article is to substantiate antientropic tools for managing processes of balanced sustainable development of regions. It is shown that one of the most complicated and important contradictions in the system of territorial administration is the contradiction between the development and sustainability of such a complex multidimensional system as a region. And, obviously, relevant scientific task arises as regards to the development of modern approaches to the justification of instruments of dialectical “removal” of the specified contradiction. It is revealed that an optimal methodological step will be the introduction of antientropic approach in the processes of realization of balanced sustainable regional development.

2. Balancing dynamic and static characteristics of the development of a multidimensional system – region

The issue of trends and prospective directions of regional development has recently shown increased interest but this problem is not deeply studied in the scientific literature. A. Kilienene, I. Macherinskene, V. Navitskas and Zh. Simanavichene define tactical actions to strengthen the region through sustainability, namely: “reliance on local resources, increased internal regional turnover, confidence-building among key social groups in the region” (Kilienene, Macherinskene, Navitskas, Simanavichene, 2006). All that they mentioned is reflected today in trends of regional development and Ukraine: the preconditions are formed for the reliance on local resources and increase in the domestic regional turnover, which is manifested in import substitution, strengthening of trust among the key social groups in the region, which involves coordination of actions of the authorities and society. At the same time, given the ambiguity of interpretations of “sustainability” and “stability” as properties of development, the need arises to solve the problem of balancing dynamic and static characteristics of the development of a multidimensional system – region.

Therefore, it is extremely relevant to develop new and improve existing methodological approaches aimed at bringing the system of management of regional development to the required optimal state, that is, to substantiate antientropic paradigm of management of processes of introducing a model of balanced sustainable development.

The problems of entropy and anti-entropy of social systems, in particular, management organizations, were addressed by domestic and foreign specialists. Among the most famous works that determined the vector of this study, it is worthwhile to indicate the works (Mylner, 2000; Luniachek, 2011). They give a thorough vision of phenomena of entropy and anti-entropy using a powerful physical and mathematical apparatus. However, the issues of management of antientropic tools for balanced sustainable development of regions were not studied. Therefore, the modern state of theory and practice of public administration predetermined the choice of the direction of this study.

The search for a given methodological approach in related sciences seems obvious. Ya. Vykliuk writes: “Today, more and more scientific papers are devoted to the application of physical laws for the modelling of economic and social systems... The application of laws of thermodynamics for studying ecosystems and socio-economic systems allowed showing that these systems should be understood as thermodynamically open. The use of methods of physico-mathematical modelling allowed defining entropy and assessing risks of the functioning of the socio-economic system. Note that the application of thermodynamic laws also indicated a high level of their adequacy in models of urban management” (Vykliuk, 2010).

L. M. Gumilev writes about the dynamic system: “...the system should permanently remove the accumulated entropy by interchanging energy and entropy with the environment. Such an exchange is regulated by management systems...” (Gumilev, 2008). Therefore, we consider appropriate to search for energy and entropy exchange mechanisms of the system, which is a region, with the external environment. Entropy for the region as a system can be considered processes/phenomena, which are not immanently inherent in the specified system, are not its essential, determining features. Manifestations of entropy were mentioned above when characterizing the current state of state regional policy in Ukraine.

Crises of the last decade forced to draw a number of conclusions, given which we consider it appropriate to identify leading trends and prospective directions of regional development to be given close attention: 1) development of import-substituting productions; 2) diversification of the economy; 3) reduction in the relative share of employed in material production and increase of employed in non-material one; 4) development of production of highly processed

products; 5) increase in labour efficiency, value added, growing intellectual component, innovative development; 6) development of industries with the highest multiplicative effect; 7) coordination of actions of the authorities and society; 8) development of collective forms of ownership (cooperatives); 9) clustering; 10) creation of technology and industrial parks; 11) public-private partnership; 12) taking spatial advantages in the placement of productive forces.

Such classical characteristics of the region as "structuredness" and "multidimensionality" define the region as a set of subsystems in the territorial space that necessitates complex development in the territorial aspect. Territorial constraints limit the flow of some developmental factors from the environment in the spatial, economic, and organizational coordinate system. In other words, such regional characteristic as "partial openness" that manifests among other things in certain closeness by territorial and, in particular, economic and organizational features and, as a consequence, in the lack of possibility to attract factors of development from the environment, it requires maximum use of geographical space and land resources through complex spatial development.

As we see, characteristic of the state of regional development, which was given at the beginning of the article, is completely within the scope of the modern definition of entropy. Therefore, it seems relevant to substantiate antientropic paradigm of management of processes of introducing a modern vision of balanced sustainable regional development, which is interpreted through a balance of sustainability and development.

3. Management imperatives of balanced sustainable regional development

It should be noted that the modern variety of methodological approaches used in the science of "public administration" gives quite an ambiguous definition of the phenomenon of "entropy". An attempt to combine interpretations of entropy led to the following. Modern understanding of entropy provides for the growth of variability, multivectoriness in the system, polyvariety etc. For the XX century, more characteristic is the description of entropy processes through the concepts of "damping", "hindering", "reducing integrity" of the system, "the gap between its connections." Polar, at first sight, approaches describe different stages of "evolutionary function" of entropy: at the expense of multi-vector and polyvariant nature of development, the total energy of the system is divided, broken down, resulting in the inhibition of its "direct" movement. The emergence of additional, alternative capabilities "litters" the system, creating a polyvariety of movement for a single period of time.

In the context of the system of management of regional development, anti-entropy can be interpreted as

a purposeful activity for bringing the system to the state that more closely meets the requirements of evolution, for a shorter period of physical time than the complete cycle of "natural" evolution demands. It is obvious that the region, representing a complex multidimensional system, involves principles of effective development inherent in such formations. So, the principle of integrity is reflected in the complex territorial development, the smoothing of territorial disproportions. The principle of optimality finds its expression in optimal development and location of industries in the region. Problems of optimization are considered in papers of many scholars, among which we should mention: W. Lassmann, H. Schilar, K. Schwarz, S. Brentjes (Lassmann, Schilar, Schwarz, Brentjes, 1990).

At the same time, despite characteristics of growth points described in the works of the cited authors, in practice, we face with the latter, which are not one-dimensional (industry, region) but multidimensional, when simultaneously determining the leading, priority branch in the association with a certain territory. In this regard, it is more appropriate to talk about the instrument – the territorial-industrial formation (cluster, industrial park, technopark etc.) – as an effective regional locomotive of growth.

Let us consider regional development trends existing at the current development stage of Ukraine by the following directions: 1) sustainable development; 2) innovative-modernization; 3) those having both innovative-modernization and sustainability components. The first block is represented by the following trends: diversification of the economy; development of import-substituting productions; production of highly processed products; reduction in the relative share of employed in material production and increase of employed in non-material one; coordination of actions of the authorities and society; development of collective forms of ownership (cooperatives).

Their realization allows region to pass through crisis phenomena with the slightest downturn in development, because they are oriented either on less dependence on external factors (import substitution, high degree of processing), or on the minimization of adjacent production dependence (diversification), or on the levelling of intra-regional social disturbances (coordination of actions of the authorities and society), or on the stabilization of labour market situation due to increase in employment (creation of cooperatives).

The trend to reduce employed in material production and increase of employed in non-material ones, which comes from innovative-modernization block as a consequence of the increase in labour efficiency and labour saving, relates to a stable block of regional development areas. This is predetermined by a number of factors, in particular, firstly, market supply and demand for non-material works and services are relatively stable since they are less imported from the

external environment and are poorly exported to the external environment; secondly, demand for services is mostly not elastic in price due to the impossibility of denial of services, even in a crisis (utility services, hairdressing, funeral services), they are refused in the last turn; thirdly, expenditures on consumption of products of the non-material sector, for the most part, occupy an insignificant share in aggregate expenditures. The global crisis of 2008–2010 has clearly demonstrated that mono-industrial regional systems, whose functioning is too dependent on external factors, have faced much more significant socio-economic problems in comparison with regions oriented on domestic demand, where the production of essential commodities is developed, as well as in comparison with regions where production is diversified.

The second block represented by the following prospective areas and tools of regional development – increase in labour efficiency, value added, growing intellectual component, growth in the share of innovative products; clustering; creation of technology and industrial parks; taking spatial advantages; development of public-private partnership – has a pronounced innovative character and thus determines modernization direction of regional development, especially relevant in recent times. The third block, which is a symbiosis of two previous ones, is represented by one perspective area – development of industries with the highest multiplicative effect.

Synthesis of the abovementioned blocks in relation to this area, which envisages realized specifics of antientropic approach, has led to the following conclusions:

- 1) sustainability is inherent in those industries that operate stably, for example, where products are manufactured, the demand for which is little elastic in price, and which operate stably in the event of a crisis, ensuring the continuity of related industries;
- 2) modernization-innovative direction finds its expression in the following – in the conditions of crisis recovery, the construction, tourism and other industries are the “locomotives” of regional growth, their development and investment in them give the greatest economic effect. Along with that, in the acute phase of the crisis, the production of products and services in these industries is decreasing, taking also related industries, which does not allow us to consider this promising area as classically sustainable.

In such a way, sustainable block is represented by trends within the already known principles “optimality”, “balance” and “coordination”: diversification of the economy; development of import-substituting productions; production of highly processed products; reduction in the relative share of employed in material production and increase of employed in non-material one; coordination of actions of the authorities and society; development of collective forms of ownership (cooperatives).

Modernization-innovative block is represented by perspective areas and tools within the principles of “complexity”, “optimality” and “balance”: increase in labour efficiency, value added, growing intellectual component, growth in the share of innovative products; clustering; creation of technology and industrial parks; taking spatial advantages; development of public-private partnership.

The symbiosis of sustainability and modernization-innovative directions is represented by the area of regional development within the principle of optimality: development of industries with the highest multiplicative effect.

We consider understanding and taking into account the whole aggregate of abovementioned perspective areas as imperative in the realization of the management mechanism of balanced sustainable regional development.

4. Research methodology

The next stage of realization of the set goal envisages the development of tools capable of providing adequate realization and implementation of the outlined approaches. Modern professional literature substantiates possibilities of the application of synergetic-evolutionary-information approaches to the management. The most famous papers are written by C. Meyer, S. Davis. They describe the theory of adaptive systems, according to which “interaction of self-organization, recombination, selection, and collective evolution lead to the emergence of a new quality of the system” (Meyer, Davis, 2007), which evolved, that is, adapted to the changing environment and meets its requirements.

Modern science and practice of public administration are characterised by attracting managerial principles typical for the commercial sector to public administration tools. “In business, growth serves as a reasonable criterion for the viability of the company” (Meyer, Davis, 2007). The criterion of the viability of a certain organizational structure of public administration authorities at the regional level is the ability to ensure the exercise of powers at the expense of internal for the territory resources, and subsequently – to act as a donor region. For this purpose, it is worth using a new paradigm of management that is “to create a system of views of management focused not on engineering and efficiency but evolution and adaptability” (Meyer, Davis, 2007). Sharing the opinion of researchers, we should specify that the efficiency of management does not cease to be important both the purpose and the characteristic of the required type of management. However, given the constant acceleration of all processes and sides of management (development of subject and object of management, a complex of their environments etc.), it seems appropriate to use the principle of advance.

Adam Smith also argued that “individual intelligence and individual actions – the only way to create opportunities for adaptation (Smith, 1962). System anti-entropy increases with the increase in the share of “individual” actions, decisions etc. in the organization. Therefore, the circle of people who make managerial decisions in the LPAA, in particular, LGA, needs to be expanded, while increasing individual responsibility and providing decent professional training. Human resource management is an established requirement for the functioning of the organization. A. Toffler proposed an approach that is partly reflected in the current version of the Law of Ukraine “On Civil Service”. So, A. Toffler noted: “the work of most people must be diverse, it should not be repeated and should be based on personal responsibility, demand from the person the ability to distinguish, evaluate, and judge” (Toffler, 1984).

If entropy is interpreted as an increase in the spectrum of probable opportunities, the choice of the wrong way option at the point of bifurcation can lead to irreversible deterioration of the situation. It seems necessary to determine an optimal way of regional development among all possible options based on computer modelling. So, sociologists Joshua Epstein and Robert Axtell developed a universal computer model of society “Sugarscape”. The program creates models on the basis of elements of adaptive systems: agents (freely operating units), rules, and the environment. The experience described in the professional literature indicates the efficiency of applying this model when making managerial decisions not only within the organization but also within the industrial sector of the state (Epstein Joshua M., Robert Axtell, 1996). Given the fact that the model is in open Internet access, it is expedient to propose local public administration authorities to use it when determining an optimal variant of problem-solving.

Described in foreign professional sources (Höpner, 2005) management methods applied for the commercial sector can be partially adapted to domestic realities of public administration at the regional level. It is, in particular, about the method of “localized innovation” – in the abovementioned source, “all franchises should share new knowledge with other franchises. We create knowledge community.” The key is the requirement for obligatory notification to colleagues/organizations – other bodies of local self-government or local executive authorities – about successful innovations in management. It is possible to implement it through the creation of a single information portal, the attraction of leading associations of local self-government bodies. Mandatory requirement for ensuring the effectiveness of this portal is the involvement of experts-analysts, who must provide high-quality scientific support of the disaggregated data provided, by means of generalization; selection of those with a relatively universal character; formulation of

proposals for the dissemination and introduction into the legislative practice of the state. Such an approach to the organization of the functioning of portal corresponds to the principle of adaptive management “to create, connect, develop,” at which “evolution as such is incorporated not only in production” of this organization “but also in its strategy and management” (Smith, 1962).

On the basis of analysis carried out, in the context of the development of the domestic legislative field, it seems appropriate to amend the Law of Ukraine “On Associations of Local Self-Government Bodies” by provisions on functions in the sphere of determination and dissemination of advanced managerial methods, including at the level of supranational associations of local self-government bodies.

One of the resources for antientropic management on the basis of the adaptive approach requiring the realization of the principle of diversity is multidisciplinary teams. In the context of the problems under study, the realization of this postulate provides for the formation of a body of local self-government officials with diverse professional training, which will allow attracting the full range of modern methodologies of various sciences and wide own managerial experience of officials to solving the problems associated with the introduction of the proposed model of sustainable development. At the same time, all of them should have the necessary training in the field of public management and administration, which will ensure a shared vision of the goal.

Features of adaptive organization (i.e. one that successfully applies antientropic tools) are predetermined by corresponding managerial methods: maximizing the diversity of ideas; ensuring their ability to contact and interact with each other; increase the number of such contacts (Meyer, 2007).

In the context of studying processes of the introduction of a model of sustainable development of the region on the basis of antientropic paradigm, this thesis acquires the following interpretation. Increase in the number of variants for interpreting certain entropic crisis situation, the growth of quantitative indicators of “visions” of the exit from it will lead to the transition to the next qualitative state. The number of contacts among carriers of such approaches will increase them exponentially that will cause inevitability of qualitative leap.

Therefore, in order to more effectively use the potential of recombination, it seems appropriate to conduct competitions of “best practices” not only among local self-government bodies of a certain level but to extend the circle of their participants to all elements of the system of local self-government (including village, settlement, city mayors, chiefs, bodies of self-organization of the population) and local executive authorities, providing at the legislative level, the possibility of transferring certain elements from one branch of public administration to another.

Interpreted in such a context, “collective evolution” of local self-government bodies and local executive authorities will be realized, probably, by the following ways: through certain *competition* in the exercise of powers (in the introduction of competition system of their distribution, at which the performer is guaranteed to receive funds for their execution, having previously proved his ability through a special procedure); through *cooperation* in the exercise of those powers that it is expedient to realize by joint efforts; through the implementation of joint innovations in managerial activity.

On the basis of analysis carried out, in the context of the development of the domestic legislative field of local self-government, it seems appropriate to amend the Law of Ukraine “On Associations of Local Self-Government Bodies” by provisions on functions in the sphere of determination and dissemination of advanced managerial methods. In the given context, it seems possible to analyse the organization of activities of supranational associations of local self-government bodies from the viewpoint of management of antientropic processes, which serve as a meaningful pillar of the introduction of the green economy, which is a circle of further promising research.

5. Conclusions

It should be emphasized that the listed tools should be used as a single set, providing a synergetic effect in adaptive management of organizational processes

associated with the introduction of the modern model of sustainable development.

Summing up, let us note the following. In this study, modern approaches to phenomena of entropy are generalised; antientropic paradigm of management of processes of introducing modern model of balanced development at the regional level are substantiated; on the basis of antientropic paradigm, there is proposed a set of approaches to managing organizational processes in the system of local self-government, which provides permanent dynamic multi-vector interaction of systems (organizations) of different levels and different environments, also it is used for ensuring coherent dissipative activity. Based on the concept of adaptive management, a complex of tools for managing organizational processes in the system of subjects of providing sustainable balanced regional development is elaborated.

In view of this, future research prospects are associated with deepening the study of processes and forms of antientropic management of regional development through the introduction of a model of the green economy.

Tools that are proposed in this research for introducing the model of balanced sustainable regional development on the basis of antientropic paradigm include the following: maintenance of an open state of the system; use of the principle of feed-forward control; realization of the principle of diversity. The presented complex of approaches ensures continuous dynamic multi-vector interaction of systems (organizations) of different levels and different environments.

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FRANCHISE AGREEMENT IN ROMANIA AS A FORM TO PROVIDE ECONOMIC EFFICIENCY OF BUSINESS ACTIVITY

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Abstract. *The purpose* of the article is to study the economic and legal nature of the franchise agreement in Romania. Franchising has become one of the most effective tools for economic activity and profiting in this country, and the franchising agreement is a form, in which all aspects of this activity are reflected: the rights and obligations of the parties, the price of the franchise, the duration of the franchise relations, transactions between the franchisor and the franchisee, the prohibition of competitive actions, etc. *The subject* of the study is the franchise agreement in Romania. *Research methodology.* The research is based on the use of general scientific and special-scientific methods and techniques of scientific knowledge. The dialectical method allowed us to investigate the definition of a franchise agreement in Romania and its key terms. The comparative legal method was used to compare doctrinal approaches to this issue. The statistical method was used to establish data that reflects the effectiveness of franchising activities. The method of system analysis helped to find out, in which areas of economic activity franchising is most demanded. Interpretation of the content of Romanian legal acts governing issues related to the conclusion of a franchise agreement in this country was realized with the help of the normative-dogmatic method. The system-structural method was used to study the franchise agreement in Romania as a single entity (system) with the coordinated functioning of all its elements. The methods of grouping and classifying formed the basis for separating the list of conditions, which are necessary for concluding a franchise agreement in Romania, as well as provisions that should be included in the content of this agreement. Methods of analysis and synthesis helped to study some parts of this agreement to formulate further conclusions. *Practical application.* The positive experience of Romania in regulating issues related to the conclusion of a franchise contract can be used for making appropriate changes to the Ukrainian legislation. Thus, in Romania, a special regulatory act (Ordinance 52/1997), which regulates the procedure for concluding this agreement, defines the rights and obligations of the parties and establishes the essential terms of the contract and the principles for its implementation, was adopted. Issues which are not regulated by the Ordinance are subject to the Civil and the Commercial Codes of the country, as well as European legislation, which sets out requirements for the prohibition of competition. *Correlation/originality.* This scientific work is the first research in Ukraine devoted not only to general issues of regulation of franchising activity in Europe but specifically to the franchise agreement in a separate country (in Romania) and its legal and economic peculiarities.

Key words: franchising, franchise contract, franchisor, franchisee, disclose, contract terms, anti-competitive action, resale price.

JEL Classification: K12, F55

1. Introduction

Franchising is an important part of the economy and the central phenomenon in entrepreneurship. In the current context, it is used as an effective tool for establishing and expanding entrepreneurial activity. In the last decade, franchising has played a key role in the development of small and medium-sized businesses; large companies use it to expand their activities, and individual entrepreneurs – to open their own business. Moreover, franchising is recommended as an active accumulation of resources for the rapid creation of large networks. In addition, it is a guarantee that entrepreneurs adhere to high standards of doing business for its successful development.

Franchising is a mutually beneficial form of cooperation both for the franchisor and for the franchisee. The franchisee receives the right to sell goods or services under the trademark and using the business experience of the latter. The franchisor, in turn, receives remuneration in the form of initial and current payments.

Because of it, the economic significance of franchising attracted the attention of a wide range of researchers. In each scientific area, it received its separate definition. From the perspective of entrepreneurship, franchising is a vehicle for entering business ownership, from the perspective of marketing, franchising is an important

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distribution channel, from the perspective of economics, franchising is a leading venue for understanding the structure of contracts and from the perspective of strategic management, franchising is an important organizational form.

Franchising is a business relationship, in which the franchisor (the owner of the enterprise providing the product or service) transfers an independent person (franchisee) the right to sell and distribute franchising goods, as well as to use the business name for a fixed period of time. The International Franchise Association defines franchising as a continuing relationship in which the franchisor provides a licensed privilege to do business, plus assistance in organizing training, merchandising and management in return for consideration from the franchisee (Tripa).

The study of franchising as a type of international business was undertaken by N. V. Bezrukova, L. V. Voroniak, T. M. Hryhorenko, N. M. Hrushchynska, O. M. Kolodiziev, O. Ye. Kuzmin, A. M. Mahomedova, V. Ye. Sakharov, V. S. Tatarinov, T. M. Tsyhankova, A. V. Tsyrat, I. M. Shkola and others. However, this would be the first study in Ukraine devoted to franchising in Romania, and in particular, the economic and legal characteristics of the franchise agreement in this country.

In connection with the course of Ukraine on European integration, it is reasonable to study the positive experience of leading European countries for its further application to the legislation of our state. Therefore, the purpose of this article is to study economic and legal characteristics of the franchise agreement in Romania, which was one of the first countries in its geographic region to adopt special legislation in the field of franchising.

2. Statement of the baseline

Franchising is a relatively new phenomenon in the economic sphere of Romania. Until 1989, it simply did not exist in the domestic market of the country. This issue was discussed solely by the economists-theoreticians, and only in terms of commercial franchise concept and exclusively with reference to the realities of other countries.

Only with the adoption of the Law № 31/1990 on commercial companies, the development of entrepreneurship became an important component of economic restructuring. The rapid and major extension of such an economic phenomenon as franchising began in Romania. A few years later thanks to franchising, large companies of the Western world came into the country and began to set up their offices in the most varied fields of activity. The first forms of contracts, similar to the franchise agreement (distribution or affiliation), came into being after 1990. The first classical franchise company entering into Romania was McDonald's (1995) (Adriana Florina Popa, Andreea Gabriela Ponorică).

The franchise market in Romania has undergone many changes over the last decade due to the global economic crisis that began in 2008. After 2008, there was a decrease in the number of franchises available in the market; however, since that time franchising development has generally begun. The tendency of the international franchises access to the local market continues. In 2015, the Romanian franchise market had an overall turnover of €1.9 billion (\$2.09 billion). There are 345 active concepts, according to Inventure Franchise Consulting, 11% more than in 2014. 25% of concepts have 10 outlets or more and 50% have at least three. While the market is dominated by international franchises, future growth is expected to be fuelled primarily by domestic concepts, which currently account for one-third of the brands. Most foreign concepts originate in the United States and European countries, such as Great Britain, France, Italy, Poland, Spain, and Germany (Romania Country Commercial Guide).

Over the past ten months, the Romanian market has seen a significant increase in franchises in the retail sector (including clothing and footwear, IT and consumer electronics products) and the food and beverage sector. A report published in October 2018 by a well-known financial newspaper (Ziarul Financiar) states that that franchises, comprising over 400 business concepts, feature prominently in Romanian commerce, with cumulative revenues in of EUR 3 billion in 2017, and are experiencing a period of sustained growth.

According to the Romanian Association of Franchising in Romania, there are more than 438 franchises in various business areas. The analysis of 2633 franchise units operating in Romania determined its high popularity in such spheres as: personal services – 30.54%; retail trade – 28.29%; fast food establishments – 25.07%; service enterprises – 6.57%; interior arrangements – 2.66%; clothing and accessories – 2.47%; food – 1.63%; real estate – 1.06%; construction – 0.65%; restaurants and cafes – 0.65%; hotels – 0.42% (Tripa).

Along with international brands, there are a number of local franchise companies acting on the Romanian market such as Jolidon, MEXTON, ID Sarrieri, Tina R, and others.

In 2006, because of the expansion of the franchise business and for the maintenance of European standards in this area, the Romanian Association of Franchising was created – a non-governmental, apolitical, non-profit organization. The goal of the organization is to identify and to solve specific franchising issues, to promote franchising as a way of doing business on the Romanian market, initiating action against illegal franchises, to combat counterfeiting and theft of know-how (Tripa).

The Romanian Association of Franchising has adopted its own Code of Ethics for Franchising in accordance with the European Code of Ethics for Franchising and the provisions of the Franchising Law. The functions of the Association include the verification of pre-contract disclose documents and franchise agreements.

Membership in the Association is not mandatory, but it is recommended. The Association guarantees certain benefits to its members, for example, they can use the services provided by the mediation committee consisting of international experts. The latter are trying to resolve peacefully any disputes that arise between franchisors and franchisees, and they are entitled to punish them for violating the Code of Ethics for Franchising. Another advantage is providing essential information by the Association. A company that wants to become a member must pay an entrance fee, as well as annual membership fees.

Concerning the existence of legal acts regulating franchise activity and conclusion of franchise agreements, it should be noted that Romania was one of the first countries in its geographic region to adopt special legislation in the field of franchising. On August 28, 1997, the Romanian Government adopted the Ordinance 52/1997 about the legal regime applicable to franchising (Law on franchising) (Ordonanta No 52 din 28 august 1997). In accordance with this statutory act, a franchise is "a trading system based on the constant cooperation between individuals or legal entities, each of which is financially independent of the other, by which a person, called the franchisor, gives another person called the franchisee the right to work in the network or develop business, product, technology or service."

The key concept of the franchise system is the franchise network, that is, the contractual relationship established between the franchisor and one or more franchisees, which purpose is to promote technology, product or service, as well as to develop their production and distribution.

The Ordinance 52/1997 explicitly provides for the obligation of pre-contractual disclosure. According to clause 2 of the Law on franchising, at the stage of negotiations, the franchisor must provide the potential franchisee with the relevant data reflected in the so-called disclose document. The purpose of such disclosure is to enable the franchisee to evaluate probable prospects and make an appropriate decision since even if a potential franchisee has experience in the field of franchising it could be insufficient, as each franchise network has its own characteristics because it is based on the franchisor's know-how. In addition, according to Romanian law, the franchisee has no legal obligation to carry out an inspection independently before concluding a franchise agreement.

The legislator does not set any requirements for the form of the disclosure document. However, clause 2, paragraph 3 of the Ordinance 52/1997 states, which information should be included in the contents of this document: 1) the experience gained by the franchisor in the proposed business; 2) data on the financial component of the franchise agreement, such as a down payment or entry fee, periodic payments, advertising

fees, tariffs for services, products, and technology, in case of stipulation on contractual obligations of their acquisition; 3) data allowing the franchisee to calculate potential profit and make a financial plan; 4) the purpose and scope of the exclusive right; 5) information on the duration, terms of renewal, settlement of disputes, and termination of the franchise agreement.

All of the above is only the minimum information that must be disclosed by the franchisor. At the request of the franchisee, the latter must provide other information, but only to the extent it is of interest to the franchisee.

Disclosure should be made in due time before the conclusion of the franchise agreement. The Ordinance 52/1997 does not directly state what the "proper term" is. As a general rule, a disclosure document must be provided before the franchisee enters into any legal obligations regarding possible cooperation.

It should be noted that there is no statutory requirement for the franchisor in Romania to disclose relevant information at the pre-contractual stage. However, in accordance with the general principle of civil law, the contracting parties must act in good faith towards each other. Thus, the franchisor's pre-contractual disclosure obligation must be interpreted both from a general contractual perspective and taking into consideration the objective and scope of the pre-contractual disclosure phase (Mihai Guia, Cosmina Raic).

It is mainly up to the franchisor to decide what amount of pre-contractual information must be provided, but the latter should always note that in case of a dispute between the parties, it will have to prove that the disclosure before the contract was sufficient enough to allow the franchisee to make a reasonable decision concerning its joining to the franchise network.

The same principle can be applied to the franchisor's obligation to provide the franchisee with technical/commercial assistance, as well as information on any new events or facts that may significantly affect the preconditioned terms of the franchise agreement.

The law does not provide for any special sanctions in case of refusal to disclose information. However, in case of non-compliance by the franchisor with the obligation to pre-contractual disclosure information or failure to provide information about new events or facts that may significantly affect the original agreement between the parties, the franchisee has the right to file a lawsuit against the franchisor for damages caused as an effect of such non-disclosure or incomplete disclosure. The burden of proof of the existence of any damage is on the franchisee. In addition, the franchisee may require the amendment of the franchise agreement and even reduction of its financial obligations. Theoretically, criminal liability for misrepresentation is also possible (Cristina Tararache).

The franchisee, in turn, is responsible for disclosing confidential information. Clause 1184 of the Romanian Civil Code (Noul Cod Civil) stipulates that when

confidential information is communicated by one party to another during negotiations, the other party must not disclose it or use it for themselves, whether or not they enter into a contractual relationship. Breach of this obligation causes damages, which is proportional to the damages suffered by the franchisor.

Clause 5 of the Ordinance 52/1997 provides for the points of the future agreement, which must necessarily be recorded in its content. They are: 1) the subject of the contract; 2) rights and obligations of the parties; 3) financial liabilities; 4) the term of the contract; 5) the terms for alteration, renewal, and termination of the contract.

The franchise agreement must reflect the interests of the franchise network members; protect the franchisor's rights to industrial or intellectual property by remaining general identity and reputation of the franchise network.

When concluding and executing a franchising agreement, the parties must adhere to the following principles: a) the term should be established in such a way that the franchisee could amortize the investments related to the franchise; b) the franchisor must notify the franchisee with a prior notice of his intention not to renew the contract after the expiration of its term or not to sign a new agreement; c) the circumstances, which may serve as grounds for termination of the contract without notice, should be clearly stipulated in clauses on the termination of the contract; d) the conditions under which the assignment of rights arising from the contract may be carried out should be clearly specified in the contract (in particular, the conditions for the appointment of the successor); e) preferential right should be granted if the interest in maintaining or developing a franchise network requires recognition of this right; f) non-competition clauses should be included in the contract to protect the know-how; g) the financial obligations of the franchisee must be clearly defined and introduced in such a way as to contribute to the achievement of general aims.

With the help of the franchise agreement, the franchisor monitors compliance with all the components of the brand's image. The franchisor's trademark, a symbol of identity and reputation of the franchising network are the guarantee of the quality of the product/service/technology provided to the consumer. This guarantee is ensured by the transfer and supervising the conformity of know-how, by providing with a homogeneous range of products and/or services and/or technologies. The franchisor guarantees that the franchisee is a financially independent person in relation to the franchisor or other persons.

Getting a set of relevant rights from the franchisor obliges the franchisee to pay fee in exchange for using the trademark of the products and/or services and/or technologies, know-how or other special knowledge associated with the franchise, as well as any other intellectual property rights or industrial property,

as appropriate, the continued use of commercial and/or technical assistance provided by the franchisor during the whole term of the franchise agreement.

The Ordinance 52/1997 also specifies certain requirements for the behaviour of parties to the franchising agreement (clause 4). In particular, the franchisor must: 1) own and manage its own business for a certain period before founding a franchise network (without specifying during which period of time this activity should be carried out); 2) hold intellectual property rights or industrial design rights and transfer to the franchisee the right to exploit the trade mark, know-how and other IPRs regarding the franchised product or service; 3) provide the initial training of the franchisee, as well as provide further technical and commercial support during the term of the franchise agreement; 4) advertise the franchised product or service.

In turn, the franchisee is obliged: 1) to develop the franchise network, as well as to maintain its general identity and reputation; 2) to provide the franchisor with any information meant to facilitate the analysis of the franchisee's performance and accurate financial situation; 3) not disclose to third parties the data concerning know-how both during the term of the franchise agreement and after its termination; 4) not to compete with the franchisor; 5) duly to pay the royalties and other taxes owed.

One can conclude that the requirements, which the Ordinance 52/1997 sets for the franchisor and the franchisee, aimed primarily at protecting their mutual rights and interests. Thus, the franchisor is under an obligation to prove the effectiveness of his business concept by providing data on the duration of its operation, as well as confirming the possession of intellectual property rights or industrial designs rights. In addition, it must provide initial training for the franchisee, as well as ensure its further training and technical support. In turn, the franchisee must provide the franchisor with any data necessary to improve the franchise network activity. It also has the duty not to disclose the content of know-how, which is the subject of a franchise agreement. All these measures are necessary to protect the commercial secrets of the franchisor, as well as its other intellectual property rights.

When concluding a franchise agreement in Romania, the parties, in addition to the Ordinance 52/1997, must also comply with the requirements of European legislation on anti-competitive practices (Article 101 of the Treaty on the Functioning of the European Union) and the National Competition Law № 21/1996 further amended. Franchise relations should also comply with Commission Regulation № 330/2010 on the application of Article 101 (3) of the Treaty on the Functioning of the European Union regarding the categories of vertical agreements and concerted practices, which provides the conditions under which vertical restraints are exempted from the prohibition on anti-competitive agreements.

After concluding a franchise agreement, the franchisee usually pays an initial royalty or network entry fee. During the term of the agreement, the parties may also agree on: periodic royalties; advertising fees; exclusivity fees; other tariffs for services, products and technology that the franchisee must acquire from the franchisor under the franchising agreement.

The parties can charge interest on overdue payments either: 1) at a rate agreed by them contractually; 2) in the absence of an agreement, at a rate calculated by reference to the legal interest rate.

Romanian law provides that the legal interest rate for overdue payments is 8% over the interest rate of the National Bank of Romania (which is published in the Official Gazette of Romania each time it is amended). The legal interest rate is of 6% per year for contracts with a foreign/external element (for example, when the franchisor is a foreign entity) that are governed by Romanian law and for which payment was agreed to be made in foreign currency (Mihai Guia, Cosmina Raic).

The franchisor's fixing of minimum resale prices on the franchisee, whether direct or indirect, is prohibited under both European and national legislation. This is considered to be a strict restriction; in case of non-compliance, the franchisor must pay a fine of up to 10% of the registered turnover of the company until the year when it was authorized. However, maximal or non-binding prices may be specified. There are also some exceptions to the prohibition on setting/maintaining resale prices. According to the European Block Exemption Regulation, fixing resale prices in short marketing actions shall not be subject to the restriction (Commission Regulation).

The duration of the franchise agreement in Romania is not legally determined. The parties to the agreement can define it independently and fix it in the relevant provision of the treaty. However, the minimum period of validity of the agreement, as it was stated above, must be sufficient to allow the franchisee to amortize investments related to the franchise. As a rule, a franchise agreement in Romania is concluded for a period of five to ten years.

The Ordinance 52/1997 does not contain any specific provisions on the franchisor's right to terminate the agreement before its expiration. Thus, general rules of the Romanian contract law applied, under which the contract can be terminated in the following cases: 1) for default, that is, in case of serious breach of the contract by the other party; 2) for convenience, subject to certain conditions and formalities (for example, fixed-term contracts can be terminated for convenience if the contract specifically allows it); 3) by mutual agreement of the parties (Mihai Guia, Cosmina Raic).

The franchisor must inform the franchisee of any breach of the contractual obligations and give it a reasonable period to rectify this violation.

If there is no agreement on the other, the contract, as a rule, is terminated by the court. Thus, the non-defaulting

party has the right to request termination before the court. The court analyses the claim and decides whether the breach was serious enough to terminate the contract or if other remedies are better suited to provide compensation to the injured party. However, the parties should stipulate the provision of the contract that provides for the possibility to terminate the agreement without applying to the court and the circumstances which may be grounds for termination of the contract.

The franchisor should not pay the compensation to the franchisee for termination of the contract, but for this, the franchisor must perform its contractual rights in good faith and within the limits of its rights. In other words, the franchisor must use its right to terminate the contract in a way that must not be deemed to be abusive by reference to normal and fair market standards (Mihai Guia, Cosmina Raic).

After termination of the agreement, post-contract relations are based on the rules of loyal competition. The franchisor can oblige ex-franchisee not to disclose information on know-how to competing franchise network, thereby securing the confidentiality of the business (clause 8 of the Ordinance 52/1997).

As we see, the provisions of the clause 8 are not obliging, that's why the franchisor must protect its rights by securing the provision on non-compete and confidentiality, preventing the transferred know-how alienation during the validity of the agreement. The Law on franchising does not provide for a period for anti-competitive actions and confidentiality, therefore, it is necessary to determine it during negotiations.

The franchise agreement can be renewed by the mutual consent of the parties; this consent must be represented in the corresponding provision of the contract. If the franchisor refuses to continue cooperation, the franchisee does not obtain the right to compensation if such a right is not stipulated in the contract itself.

3. Conclusion

Franchising in Romania, as in many other countries, is an effective business concept that "penetrated" to all areas of entrepreneurship, as a result of appropriate economic environment and adoption of relevant regulatory acts. Until 1989, only academic economists spoke on franchising; in practice, it did not exist in Romania because of ideological reasons. In the 1990s, first international franchise companies arose on the territory of this country, and since the 2000s, there has been a rapid development of local franchise companies.

Legal relations between the franchisor and the franchisee are regulated by the franchise agreement, which reflects the interests of the franchise network members and protects franchisor's intellectual property rights or industrial property rights while maintaining the general identity and reputation of the franchise network.

The issue of concluding a franchise agreement is regulated by the Ordinance № 52, which was adopted in 1997. The Civil Code and the Commercial Code of Romania will be applied where matters are not covered in the Franchise Law. The procedural aspects of entering into a franchise agreement are regulated by the Franchise

Law and the Romanian Civil Procedure Code (Nicholas Hammond, Sebastian Simon).

The parties to the agreement are free to negotiate all its provisions as long as they comply with the provisions of the Ordinance 52/1997 and the aforementioned codes.

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TOPICAL ISSUES OF ECONOMIC CRIME INVESTIGATION: EUROPEAN VECTOR

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Abstract. *The aim of the article* is to analyse topical issues arising during the investigation of economic crimes in Ukraine and abroad, as well as to develop concrete suggestions to optimize the investigation of such crimes. *The subject of the study* is the topical issues of the investigation of economic crimes: the European vector. *Methodology.* The analysis of legal regulations of Ukraine and scientific literature enabled to study the current state of combating organized groups committing economic crimes and to determine the strategic priorities and objectives of counteraction to this socio-negative phenomenon in Ukraine, as well as dialectical method, scientific abstraction, methods of system analysis, were used. *The results* of the study revealed that the authors proposed the perspective concerning a strategy, ways, and mechanisms for overcoming economic crime in Ukraine through the introduction of advanced European experience. *Practical implications.* The study and adoption of positive foreign experience in countering organized crime in the economic sectors, individual elements and introducing them into the law enforcement bodies' practice in Ukraine would enable to improve performance during the investigation of economic crimes. *Relevance/originality.* A comparative analysis of the investigation of economic crimes in foreign countries enabled to develop the most promising areas to improve domestic legislation in this sphere.

Key words: economy, economic crime, investigation, Euro-integration, strategy.

JEL Classification: K13, F36, C41

1. Introduction

The relevance of the study of economic crime features and the analysis of their commitment is exacerbated by the economic instability in the state and the struggle for economic power. Any crime is always predetermined by a certain factor or condition. The variety of ways to commit crimes in the economic sectors, criminals' use of various technologies and operations, and other factors contributing to the commission of unlawful acts in the economic sectors lead to significant difficulties in their investigation. In the context of this issue, it should be noted that the features of the crime are characterized by different aspects and phenomena that they reflect, therefore, their identification and specification is a priority task in the detection and investigation of economic crimes. With the advent of new economic conditions, new ways of economic criminal act mechanisms have emerged (Skakun, 2018).

To counteract effectively the threats to the state financial security, in particular, corruption and depletion of the state financial resources require continuous operation of the system of timely identifying and addressing systemic risks in public finance, preventing their occurrence in the future (Ukrainskyi OLAF).

At the present stage of the formation of Ukraine as a European state, a complex of strategic measures aimed

at the development of the economy in the conditions of European integration is in progress (Yunin, Sevruck, Pavlenko, 2018). XXI century is an era of globalization, which is realized in the objective reality as a multifactorial and poly-functional phenomenon with both positive and negative impacts on the development of society. Therefore, modern political and legal literature fairly argues that globalization is "not absolute evil and not absolute good" (Ebzeev, Aibazov, Krasnoriadtsev, 2006; Tatsii, 2008; Sevruck, 2018). Therefore, nowadays Ukraine has declared Euro-integration as a key priority of economic policy. The need to develop the integration strategy of Ukraine has been caused by the strive of our state to meet the requirements of the modern world economic system; it is the way of modernizing the economy, overcoming technological backwardness, involving foreign investments and the latest technologies, creating new jobs, increasing the competitiveness of the domestic commodity producer, and entering the world markets.

Therefore, consideration of this issue reveals that in the case of detecting unlawful acts of economic crime, representatives of law enforcement bodies encounter some difficulties. Investigation materials may be quite large, while they may not contain the necessary facts. In addition, the analysis of such materials requires

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specific knowledge. Evidently, to concentrate efforts to complete the investigation of a major economic crime is hard work, because current cases also require engaging a police officer or an investigator (Kravchuk, 2009).

Over recent years, in Ukraine, under economic transformation, the most vulnerable economic crimes are detected, such as non-disclosure of the revenue position and, consequently, non-payment of taxes; fraud with financial resources, determined by the plans of private banks to obtain mega-profits by manipulating imperfect legal provisions of the state; in the foreign exchange market, concealing and reducing the sale of foreign currency in order to increase sharply the foreign currency rate, but consequences are evident; artificial increase and maintenance of high prices for goods, medicines and services and poor quality production, harmful to health of consumers, repeatedly reported in the media (Mochkosh, 2012).

Therefore, it should be noted that this state of affairs is related to crime adjustment to the transformations of the socio-economic structure of society and dynamic reactions to social and legal control in order to avoid it (Sevruk, 2017).

A significant contribution to the study of economic crimes investigation has been made by foreign and domestic scientists such as L. H. Androsovich, O. M. Dzhuzha, S. B. Yehorycheva, O. H. Kalman, S. Y. Kravchuk, I. E. Lapinskyi, Ya. V. Mochkosh, V. I. Muntian, V. Ortynskyi, S. V. Onishchenko, Yu. Yu. Orlov, S. O. Pavlenko, O. V. Pchelina, V. V. Ruden, V. H. Sevruk, T. O. Skakun, V. Ya. Tatsii, D. M. Kharko, O. Shostko.

The aim of the article is to analyse topical issues arising during the investigation of economic crimes in Ukraine and abroad, as well as to develop concrete proposals to optimize the investigation of such crimes.

2. Presentation of the main material

Crime in economic relations continues to have a negative impact on the development of the state. Modern economic crimes are characterized by complex and sophisticated ways and methods of their commission; therefore, one of the main problems is the increase in the professionalism and authority of investigating units. Its solution is to provide investigative units with highly skilled personnel who shall meet current requirements and be able to investigate crimes professionally to protect the economy from criminal encroachments (Ortynskyi, 2017).

Ukraine has declared its willingness to enter the European commonwealth of developed democracies that have high standards of safety, well-being and living of people, as well as the priority of human rights, the rule of law, and ensuring the inevitability of punishment for those who committed a crime. Strengthening of democratic institutions is impossible without reducing

the negative effects of corruption and organized crime, which in our country remain one of the greatest threats of these days (Yevropeyskyi dosvid zapobihannia orhanizovani zlochynnosti: teoretychni pytannia).

Nowadays, the state of affairs in the Ukrainian economy, transformations and processes that have taken place in the past, and especially over recent years, convincingly testify that the solution of socio-economic development problems has become strategic, global, and one of the most important in the state. The overcoming of crisis phenomena, struggle with the consequences of the global financial crisis, transition to sustainable economic growth require further elaboration of the mechanisms of the economic regulation both at the state and at the regional level (Ruden, 2014).

Therefore, the current system of measures of countering organized crime in the financial system is based on the basic principles, such as:

- the lower limit for a financial transaction shall be imposed, above which all transactions of a certain type are subject to registration by the institutions and persons specified by the law for the purpose of possible further verification – as a rule, this is from 10 thousand US dollars;
- the list of features shall be developed and introduced to determine whether a financial transaction can be classified as money laundering or terrorist financing;
- the designated entities, through which or with which help financial transactions are carried out, shall be responsible for informing law enforcement or supervisory bodies regarding suspicious transactions;
- the governments of the countries provide one of the executive authorities with the right to coordinate the activities of all law enforcement and supervisory bodies in combating the legalization of proceeds and terrorist financing, which acquires the status of the financial intelligence unit (Yehorycheva, 2014).

Scientific interest in the problem of economic crime and the complexity of overcoming it is due to a differentiated approach to the definition of economic crimes in the domestic literature. Variety of these phenomenon interpretations is found in the works of many scholars, defining, for example, “crimes in the economic sectors”, “economic crimes”, “shadow economy”, “criminal economy”, “economic crime” and others. These concepts are often considered equivalent, but there are attempts to prove the different nature of these phenomena. According to O. Yakovliev, an economic crime as a property and mercenary crime, as well as a crime in the economic sphere, the author argues that economic crime is characterized by a combination of mercenary offences against property, the order of management of the national economy, committed by persons who are on certain social positions in the economic structure. According to S. Kravchuk, all these concepts have a different spectrum of committing unlawful acts. For example, crimes in the economic

sectors, according to the author, are mainly economic crimes committed in various spheres; economic crime involves committing crimes in the economic activity, including using the official position. S. Kravchuk classifies acts related to the material damage or profits as crimes of an economic nature (Kravchuk, 2009).

According to O. H. Kalman, the main features of crime in the economic sectors are: 1) they are committed in the legal and illegal economic activity; 2) the subjects of these crimes can be entrepreneurs and other persons, who facilitate economic activity implementation; 3) they cause economic, political, moral harm to society and the state; 4) they are aimed at obtaining economic benefits; 5) they are committed only intentionally; 6) they can be committed by various means provided by the current criminal legislation (Kalman, 2004).

S. Kravchuk argues that economic crime is crimes committed in the economic sectors with the use of legitimate technical and accounting, financial and accounting, supervisory and managerial rights and powers. The scientist identifies eight essential features inherent in economic crime: a continuing nature; high latency; set up by the criminal acts of business entities; offence against the order of economic management; committed by individuals (because, according to criminal law, the subject of a crime can be only an individual); a close connection with organized crime, corruption and shadow economic activity; formation of semi-criminal mentality among citizens of the state; significant damage to the state, society or individual citizens (Kravchuk, 2009).

Crimes in economic sectors are mostly latent requiring the use of operational unit capabilities such as their forces, tools, and methods (Orlov, 2006).

In his work, "Criminological problems in determining the concept and features of modern economic crime as a factor of shadow economy of Ukraine," D. M. Kharko highlights the features of economic crime, such as: it is a type of crime, which is applied mainly in mass, correspondingly, causing massive harm; it covers various abuse of economic power; it is committed in the course of the professional activity of the manager's authority; it has a plurality of episodes of committing a crime; it is committed both by individuals and legal entities; it is a more complex socio-economic phenomenon than traditional crime; it is of a latent nature; it causes significant economic damage to the interests of the state (Kharko).

According to S. S. Cherniavskiy, measures for the investigation of economic crime should be aimed at: using operational unit data, the study of review acts, audits, etc., obtaining information from law enforcement and supervisory bodies (departments of the State Fiscal Service of Ukraine, the State Financial Inspection of Ukraine, the National Bank of Ukraine, the State Customs Service of Ukraine, etc.) (Kovalenko, Moisieiev, Tatsii, Shemshuchenko, 2010).

The special danger of such acts is due to the possibility to use the technology for their implementation in any branch of public economy or business. Moreover, such acts are not only a source of accumulation of capital of illegal origin but also a means of their laundering. Such unlawful economic acts include:

- formation and issue of false money in non-cash payment circulation, which leads to illegal emission;
- forgery, use and transfer to the circulation of a fraudulent document by a public official both in own interests and in the interests of third parties;
- using funds obtained illegally in the official business activity;
- fraudulent entrepreneurship;
- wilful violation of the proper accounting;
- fraudulent bankruptcy of a business entity;
- using budget funds in the interests of individual private entities or entrepreneurs;
- theft of funds through breaking into electronic banking networks;
- economic espionage (Kravchuk, 2009).

In the course of the study, the questioning of the bodies of the National Police of Ukraine established that in 91% of cases, our state should consider foreign experience in countering organized crime in the economic sectors.

It should be noted that primary, one of the most effective instruments of anti-shadowing in many countries of the world is the systems and mechanisms for financial control over illegal proceeds. For example: a) in Italy, a government decree bans cash payments for large sums; b) in Germany, settlements with non-residents requires declaration; c) in Japan, obligatory financial monitoring exists (financial institutions are obliged to report on major financial transactions to authorized public authorities). Meanwhile, in Germany, not only banks and financial institutions but also lawyers, auditors should report suspicious transactions to financial monitoring bodies in Germany (Muntian, 1999; Europe: Hidden economy, 2011; European Security, 1995; Onyshchenko, Lapinskyi, 2013).

Therefore, V.H. Sevruck argues that the system should have interstate status and concentrate information of all law enforcement agencies and special international law enforcement structures (Interpol, Europol, BCFOC, Eurojust, FATF, Egmont Group, MONEYVAL, the Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG), the Basel Committee on Banking Supervision, the Wolfsberg Group, the International Monetary Fund, the World Bank, the European Bank for Reconstruction and Development). Such a system enables to overcome this phenomenon on a global scale, and for those who counter organized crime in the financial system, creates preconditions for international cooperation on countering the problem in general (Sevruck, 2017).

In recent years, control over organized crime in economic activity has become part of international

policy: according to the European Security Strategy (adopted on December 12, 2003), the organized crime, along with terrorism and regional conflicts, is considered as one of the main threats to European countries; the EU member countries, in 2004, signed the Pre-Accession Pact on the development of joint measures for organized crime, and the European Commission has proposed the creation of the European forum for the prevention of organized crime in the economy and finances; in 2004, the Council of Europe approved the Hague Program for the establishment of the Area of Freedom, Security and Justice for 2005-2010 to shift from a reactive approach to a proactive (preventive) one to combat organized crime; at the Council of Europe meeting of June 12-13, 2007, the report "Assessment of organized crime threats" was heard and conclusions were made on the need for joint measures to combat organized crime in the EU, in accordance with the Convention of 12 July 2000 on mutual legal assistance in civil and criminal matters (Shostko, 2008).

Criminalistics literature identifies a number of unlawful acts that constitute economic crimes. These include: violation of anti-dumping legislation (indicating offenses related to violation of the rules of free competition); fraud, production of bad products (offenses that violate consumers' rights); fraud with securities, accounting documentation, fraudulent bankruptcy, use of fraudulent bank documents (crimes based on abuse of investments, deposit capital, which cause significant losses to shareholders, creditors, etc.) (Kharko). Economic crimes have an extremely complicated mechanism of implementation, and therefore, a complicated mechanism for their detection and investigation. The mechanism of crime is the system of interaction of all crime participants between themselves and the environment, which leads to the formation of forensically relevant information about the crime, its participants, and results. The mechanism of a crime contains information on how this or that crime has been committed in the economic sectors. The specificity of committing an economic crime is the subject matter of such an illegal act, that is, property as a capital, therefore, an increased organization and use of specific manners occur. Another feature of committing economic crimes is criminal act commitment under the guise of various types of civil law agreements, therefore, they look like quite legitimate economic and financial transactions (Pchelina, 2009).

The leaders of organized crime groups focus on the search and establishment of corruption relations with public officials, responsible for law enforcement and regulatory activities in the economic sectors, judges, heads of local authorities and other officials whose competence includes the adoption of important decision for organized criminal groups. This contributes to the increase in the number of corrupt officials who hold responsible positions. It should also be considered

that corruption is characterized by a high level of latency (Dzhuzha, 2007; Pavlenko, 2013).

It should be emphasized that in recent years, the development of the Ukrainian economy demonstrates unsustainable dynamics, which confirms the different adaptations of its branches to the challenges of our time, and results in lower investment and innovation activity and competitiveness. In addition, Ukraine steadily holds "honourable" places among the most corrupted countries (Kondratenko, 2018).

It should be noted that Ukraine has developed a strategy for introducing European standards of living in Ukraine and entering leading positions in the world. For this, the steps will be taken in such vectors:

- ✓ the vector of development is the provision of sustainable development of the state, implementation of structural reforms and, consequently, improvement of living standards. Ukraine should become a state with a strong economy with advanced innovations. To do this, primary, it is necessary to restore macroeconomic stability, to ensure sustainable growth of the economy in an environmentally sound way, to create favourable conditions for conducting the economic activity and a transparent tax system;

- ✓ the vector of security is the provision of security guarantees for the state, businesses and citizens, the protection of investments and private property. Ukraine shall become a state capable of protecting its borders and ensuring peace not only in its territory but also in the European region. The defining basis for security should also be the provision of fair and impartial justice, urgent lustration of authorities at all levels, and ensuring the implementation of effective anti-corruption mechanisms.

Nowadays, Europol coordinates the work of the police services of all 28 European Union member states. In contrast to national police forces, Europol does not have its own investigative authorities. Europol works closely with law enforcement agencies in 28 EU member states and other partner states and non-EU countries such as Australia, Canada, the United States and Norway (Yevropol). Furthermore, Europol has relationships with the EU member states and organizations that interact with Europol according to cooperation agreements: Albania, Australia, Canada, Colombia, Iceland, Norway, Switzerland, Interpol, and US law enforcement agencies: the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), the Drug Enforcement Administration (DEA), the Secret Service (USSS); the Federal Bureau of Investigation (FBI) the Immigration and Customs Enforcement (ICE) and the Internal Revenue Service (IRS). This network has secured communication channels provided by Europol. In addition, Europol has two liaison officers deployed to Washington DC (USA) and the Interpol Headquarters in Lyon, France (Yevropol).

Currently, a number of issues should be considered in the practice of this area. Therefore, taking into

account the survey results, it has been determined that scientific development of countering organized crime in the financial sphere needs to be improved through the definition of the concept-categorical apparatus of organized crime in the financial sphere (72%), the study of organized crime in the financial sphere as a criminological phenomenon (68 %), others (63%). In this context, for Ukraine, precisely the study of the foreign experience of foreign countries, which have succeeded in this area, is considered as a determining factor by 87% of respondents (Androsovyh, 2018). Therefore, S. O. Pavlenko highlights that a society brought up in a low morale environment cannot effectively counteract organized crime in the financial system. For that reason, priority measures of state policy should be moral upbringing of the personality (Pavlenko, 2015).

Indubitably, under the current economic situation in Ukraine, not all the positive foreign experience in countering organized crime in the financial system can be introduced, but studying its individual elements and implementing them into the practice of Ukrainian law enforcement bodies will improve performance in countering organized crime in the economic sectors.

3. Conclusion

Therefore, the question of the need to create an effective system of countering organized crime in the

economic sectors in Ukraine arises. For that reason, the use of foreign experience of public mechanisms for preventing and countering organized crime in the economic sectors enables to formulate a set of effective national levers of public regulatory influence in counteracting this type of crime. The specificity of economic crimes prevents law enforcement bodies from responding promptly to their commission. Certainly, the state reacts to these crimes and tries to prevent them. For example, the National Anti-Corruption Bureau of Ukraine is created, the Department for investigation of cases of particular importance in the economic sectors functions, Public Procurement Site Prozorro is created, and many other steps in this area are taken. However, the practice shows that all actions of the authorities to prevent economic crimes are accompanied by the emergence of more innovative mechanisms for committing economic crimes. Therefore, this topic is extremely important and it will be relevant for research for a long time (Skakun, 2018).

The issue of organized crime in the economic sectors has become international recently. Moreover, the world community recognizes that organized crime in the financial system has become a global threat to economic security; consequently, states are required to adopt coordinated measures to combat this socially dangerous activity, both at the national and international levels.

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MARKETING ASPECTS OF DEVELOPING TOURISM SERVICES MARKET IN UKRAINE & THE BALTIC COUNTRIES

Hanna Horina¹, Valentyna Barabanova²

Abstract. Under the conditions of modern European integration processes, the quality of providing tourism services, which should meet the requirements of the population as much as possible, gains momentum. The regulation of tourism development in Ukraine according to European standards and regulations impose the task of upgrading the tourism industry, search for innovative instruments to improve its functioning based on the best European practices example of the Baltic States. Marketing approaches in managing the demand for tourism services by means of innovative technologies are insufficiently defined. Among the scholars who investigated the marketing aspects in the field of tourism activities should be distinguished the following: N. E. Kudla, I. Yu. Martynov, O. M. Pravyk, I. M. Shkoda and so on. *The methodology* is based on a systematic approach to the market for tourist services, marketing analysis as a management concept for this market, on the use of modelling as a methodological principle and a method of scientific knowledge. The mechanisms of increasing the efficiency of marketing activities in the field of tourism through the structural-functional model and model of management of the marketed approach system are determined. At the present stage, the issues of finding and implementing modern mechanisms for the formation and management of demand for a tourism product remain unsolved. *Results.* The article is aimed at developing innovative methods for managing the process of implementing marketing approaches to the market for tourist services in Ukraine. Priority is the development of mechanisms for the formation of demand for tourism products through marketing technologies. The authors developed a system of marketing approaches, which includes the factors of the effectiveness of travel services; marketing methods and techniques; forms of realization of tourist services. The mechanism of formation and management of demand for a tourist product, as well as communicative and social methods of increasing the efficiency of marketing activity in the tourist services market in Ukraine, is determined. *Practical implications.* The article considers mechanisms of increasing the efficiency of marketing activities in the field of tourism. The expediency of using the European experience of the Baltic States for the development of tourism in Ukraine is emphasized. Directions of further researches are offered. The structural-functional model of the system of marketing approaches and the organizational model of operational management of the process of realization of marketing approaches to the market for tourist services are developed. *Value/originality.* The use of the proposed models will more effectively increase the efficiency of marketing activities in the modern market for tourist services. The authors prove that modelling, development, and implementation of models of marketing approaches is a powerful mechanism for achieving a new quality of tourism services market and Ukraine.

Key words: European integration, tourism of Baltic countries, system approach, market for tourism services, structural-functional model, marketing technologies, marketing communications.

JEL Classification: M31, D47, L84

1. Introduction

Structural changes in the economy, instability of the environment require a revision of the forms and methods of managing the market of tourism services. The topical issue is to define new and improving existing marketing tools, mechanisms for shaping the demand of

consumers for tourism services by means of marketing communications. The search and development of new marketing approaches, the abandonment of obsolete authoritarian methods of managing the work of tourist enterprises, the introduction of innovative marketing technologies actualize the possibilities of realizing

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and satisfying the consumers' demand for qualitative tourism services.

Implementation of marketing approaches to the market for tourism services requires taking into account social and psychological factors promoting the tourist product. It is time for the development of mechanisms for their influence on the formation and management of demand for tourism services.

The problems of tourism with elements of the system approach are covered in the works: A. Alexandrova, I. Berezhny, M. Kabeshkin, O. Lyubivtseva, K. Cooper, and others. Among the scholars who investigated the marketing aspects in the field of tourism activities should be distinguished the following: N. E. Kudla, O. M. Pravyk, I. M. Shkoda, I. Yu. Martynov and others. The analysis of marketing as a management concept in the tourism services market is carried out in the works of O. M. Azaryan, A. P. Durovich, A. S. Kopanev, V. G. Voronkova, N. L. Zhukova, V. A. Kvartalny, P. Kotler and others.

At the same time, in the works of the majority of authors, the insufficient attention is paid to the study of mechanisms for increasing the efficiency of marketing activities in the field of tourism and managing the demand for a tourist product by means of innovative marketing technologies.

The article is aimed at the development of a structural-functional model of the system of marketing approaches to the market for tourism services in Ukraine, the development of a model for managing the process of implementation of certain approaches.

2. The need to take into account the quality of the tourist product

Today tourism is one of the dynamic directions of socio-economic development of most countries in the world. In the light of European integration processes, Ukraine is also actively developing in this direction. The clearly expressed need of the society today for meaningful leisure activities requires expanding the range of tourism services. According to O. Lyubovtseva (2005), it is important "to study the proposal as a reflection of the real conditions of the country for the development of the tourism industry." Tourist operators should take into account the demands of the society regarding the quality of the tourist product, the reliability and completeness of information about travel services, means and methods of providing this information, etc.

Specific features of the tourism service provide for its other content, which requires planning and developing new marketing innovative approaches. Intangible nature of the service complicates the decision-making process of a consumer to purchase tourist products, increasing requirements to the level of professional competence of travel agents and tour operators; the separation of the place of sale of tourism services and the place of consumption, which significantly increases the risk of

inconsistency of the service received to its expectations; impossibility of accumulation.

This situation is due to insufficient marketing education, ignorance of the leaders of tourism enterprises and staff, as well as insufficient practical experience in this area. In general, 95.7% of tourist enterprises in Ukraine do not have a marketing department in the organizational structure. However, the fact that it operates is not proof of the priority of a marketing concept. The research confirms that authoritarian methods and reluctance to change outdated management guidelines prevail in the management of Ukrainian tourist enterprises. In other words, the majority of directors of tourist enterprises (100% of the largest, 96% of the average, and 95% of small) are not ready to open access to all information in the enterprise and involve employees to making decisions and forming the marketing policy of the enterprise (Yevtushenko, 2014).

For us, contemporary interpretations of the notion of marketing in tourism, which are considered through the concept of marketing interaction, i.e., when there is the use of communication and social techniques for improving the effectiveness of marketing activities in tourism, are important. We proceeded from the fact that tourism in addition to economic performs a social function, and a travel company should form a socially oriented marketing strategy in the market of tourism services. "The marketing approach to the provision of tourism services suggests that the tourist product is only a 'materialized' means of achieving the purpose of travel. Objects offered in the program of tours, to a certain extent, are a commercial form of tourist product, providing its cost and consumer value" (Pravyk, 2008).

3. Marketing approaches to providing tourist services

O. A. Lozova accentuated on marketing in tourism as an activity to stimulate the demand for tourist products (2012). Marketing as a "managed social process" was defined by P. Kotler (2006). It is interesting to define the marketing of tourism services made by N. E. Kudla (2011). The scientist noted that this is: "a complex of measures related to the definition and development of tourist products, as well as its promotion in accordance with the psychological and social factors that need to be taken into account in order to meet the requirements of individuals and groups of people at rest, entertainments by providing them with housing, vehicles, food, leisure facilities, etc." Environmental factors are not directly controlled by travel companies. However, these factors have a very significant impact on customers' behaviour. Therefore, they should always be taken into account not only when making a marketing decision but also in everyday activities. In our view, environmental factors that are constantly to be studied and taken into account in professional activities in the tourism business are presented on a permanent basis in Figure 1.



Figure 1. Environmental factors of influencing the tourist enterprises marketing in Ukraine

Source: compiled by the authors

Over the past ten years, Ukraine was visited on average by 20 million citizens in 2007, 17.2 million people came to our country (9.7% less than in 2006), and by 2009 the tourist flow decreased (the impact of the global economic crisis), and from 2010 to 2014 the tourist flow began to increase. So in 2012, taking into account the holding of Euro 2012, our country was visited by 22.4 million people, which is 9.7% more than in the previous year. After Euro 2012 it became easier for incoming tourism operators to prove potential customers that Ukraine is a very interesting, new, and promising area for tourism, with the corresponding infrastructure, national colour. These facts positively influenced to increasing of tourist flows. About 3.4 million people (the highest number of tourists served by the subjects of tourist activity of Ukraine) fell on the 2013 year, the growth rate of tourists increased by 9.0% compared with the previous year. In 2014, due to military actions in Donetsk, Luhansk Oblasts, the difficult political situation and temporary occupation of the territory of the Autonomous Republic of Crimea, the tourist flow decreased significantly – by 8%, but starting from 2015, positive trends in its development were determined in the tourism business, the number of tourist arrivals increased on 3% compared to the crisis 2014 year.

While in the dynamics the number of citizens traveling abroad was not changed significantly during the analysed period, a negative tendency is observed among foreign citizens who visited Ukraine: the largest drop in visits was for 2014-2015 years. In 2016-2017, the number of foreign tourists increased to 7% in 2016 and 10% in 2017 years. Thus, there is a steady trend of growth of tourist flows in Ukraine. Such a positive tendency gives an opportunity to talk about the gradual growth of the trust of foreigners to our country.

Ukraine is gradually becoming an increasingly attractive market for tourist services for foreign tourism companies with great potential for its steady development. Ukraine has all the prerequisites for

proper economic development through tourism but it loses significantly in the competition, lagging behind the leading countries of the world in terms of the development of tourist infrastructure and the quality of tourist services. According to the components of the tourism competitiveness index in 2017, our state was among the dozens of countries with the lowest level of security and ranked the 127th position, in a favourable business environment – the 124th one, in terms of cultural wealth – the 51st, in health and hygiene are not all so bad because it belongs to the top ten countries, ranked the 8th, with price competitiveness – the 45th, according to tourism service development indicators – the 71st, with the level of international openness – the 78th, for the infrastructure of air transport – the 79th, for land and port infrastructure – the 81st, with the focus on tourism – the 90th, for natural resources – the 115th, for human resources and labour market – the 41st, for ICT readiness – the 81st, for cultural resources and business trips – the 51st, in terms of environmental sustainability – the 97th. In accordance with the general index of tourism competitiveness, Ukraine ranked the 88th position in the ranking of 136 countries (Statystychnyy Ekspres-Vypusk, 2017).

Analysis of comparative dynamics of persons who travelled abroad and those who visited Ukraine during 2007–2017 years, Figure 2 indicates that in the tourist flows in 2012–2013, the ratio was about 49% to 51%, while in the period of 2014–2017 years, the share of persons traveling abroad was 65% compared to 35% of those who visited the country.

One of the important factors in increasing the flow of tourists from Ukraine to Europe is the introduction of a visa-free regime for Ukrainian citizens, first of all, those who used the services of travel companies. After all, far from all Ukrainian citizens have a good command of foreign languages and have the appropriate skills to organize independent travel abroad. At the same time, travel companies are working in a more competitive environment now and, therefore, have to

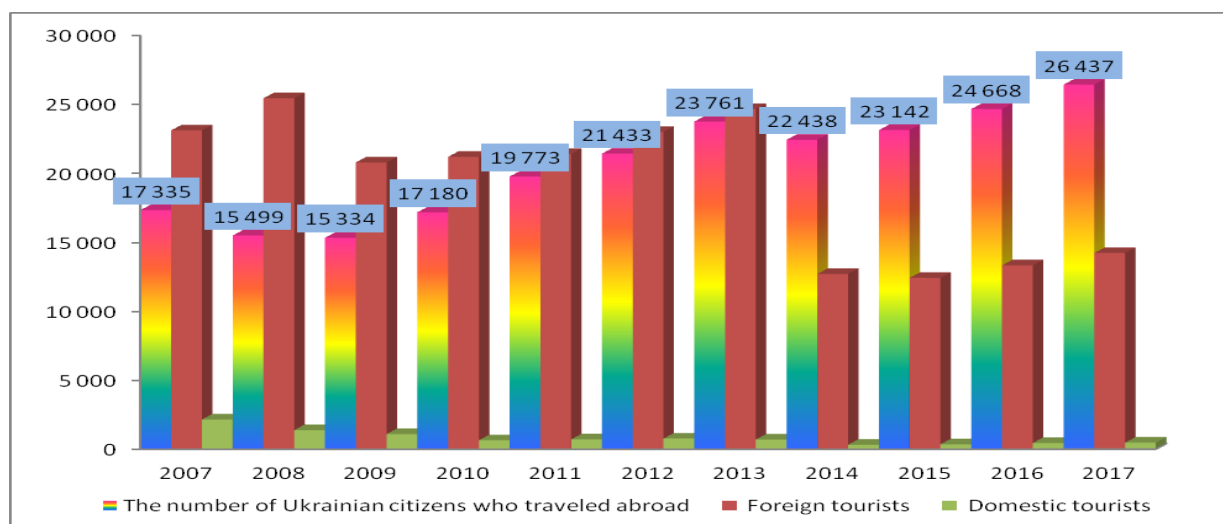


Figure 2. Chart of tourist flows in Ukraine in 2007-2017

Source: compiled by the authors according to countries (Statystychnyy Ekspres-Vypusk, 2017)

not only improve their services (travel) they offer to the Ukrainian population but also look for new tourist routes and interesting channels for the promotion of tourist services. According to the implementation of the strategy for the tourism services market development in Ukraine, the following indicators are expected (Tourism and resorts development strategy until 2026):

- 1) the increase in tourist expenses during trips to 80 billion UAH in 2026;
- 2) the increase in the volume of capital investment in tourism and resorts to 6.6 billion UAH in 2026;

Such a course of events will stimulate the intensification of competition among Ukrainian travel agencies, encouraging them to diversify their offers. It does not exclude a certain increase in the quality of tourism services and a certain decrease in their prices.

The experience of international tourism development in the Baltic region is rather interesting for Ukraine. For the Baltic countries, such as Estonia, Latvia, and Lithuania – tourism has become one of the most important priorities of economic development. These countries, like Ukraine, are at the crossroads of interregional contacts, the transport routes pass through their territory that allows developing international tourism actively.

According to the forecasts of the World Tourism Organization until 2028, the growth of the tourism sector in the Baltic Sea region will be higher compared to other regions of Europe. The development of tourism will make a significant contribution to economic growth and well-being, Figure 3 (The Economic Impact of Travel & Tourism, 2018).

Analysis of the comparative dynamics of the contribution of tourism to the GDP of the Baltic States and Ukraine during 2017–2018, Fig. 3 indicates that

according to the World Travel and Tourism Council (WTTC), the steady growth of tourist flows by 2028 is forecasted (Estonia – 5 944.0 million USD, 16.0% of GDP, Latvia – 4 385.8 million USD, 10.9% of GDP, Lithuania – 3 371.8 million USD, 6.0% of GDP, and Ukraine – 7 841.4 million USD, 6.6% of GDP) (The Economic Impact of Travel & Tourism, 2018).

The positive dynamics of tourism development in the Baltic region of the EU is determined by the structural support of the European Union. Tourism development in Latvia is one of the priority directions in the economy. Thus, in Latvia, there is a steady growth of foreign tourists, and the number of tourists already exceeds 4 million per year, which is almost twice as much as the population of Latvia.

“The tourism development program in the Republic of Lithuania for the years of 2014-2020 uses a slightly modified name – green tourism (ecotourism), which aims to monitor wildlife and local manifestations of culture without negative effect to the environment and providing the local population with socio-economic activities. The purposeful use by Lithuania of the structural support of the European Union has led to the development of local businesses: parks, alleys, cycling trails, beaches, other infrastructure changes that are used not only by tourists from abroad but also by the local population” (Furtie, 2017).

“A fairly fruitful interaction has been organized between the countries of the Baltic States in the development of tourism infrastructure and the provision of electronic services. By common consent, the Scandinavian model was adopted as a basis, which allowed outlining not only actual but also virtual boundaries between countries in the field of transport, travel and hotel business. The development of tourism in the Baltic States accelerated after their accession

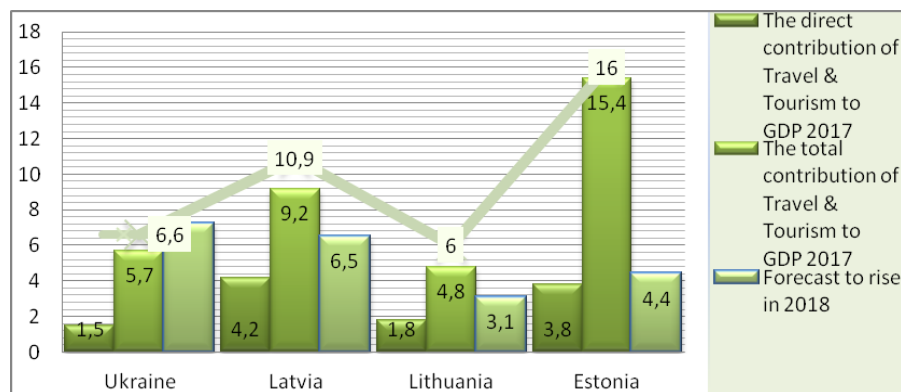


Figure 3. The direct contribution of Travel & Tourism to GDP in Baltic countries and Ukraine

Source: compiled by the authors according to (*The Economic Impact of Travel & Tourism, 2018*)

to the European Union. Thus, all three states are perceived as the only tourist region. They created a single virtual infrastructure for tourist information (websites, brochures, and advertising)” (Furtie, 2017).

The tourism sector of the Baltic countries has their advantages. Firstly, it is the novelty. The Baltic region is still considered quite new and not well-known in the world, which attracts the interest of business travellers. Secondly, it's the geographical availability, which is primarily provided by the airport “Riga”. Thirdly, it's the price advantage compared with the countries of Western Europe. Fourthly, there are hotels (especially in the segment of four and five stars), restaurants, and another tourist infrastructure.

The fifth important factor is safety. Following a series of terrorist attacks in Paris and Brussels, traditional destinations for business tourism began to lose their appeal to the organizers of major international meetings. But the demand for small, quiet, and not so popular among tourists of the city, such as Riga, Vilnius or Tallinn, has increased.

The experience of the Baltic Sea Region countries in the EU indicates a more important role of tourism as a powerful factor in the economic growth of GDP, the creation of new jobs, the health promotion of the general population, the development of culture, peaceful contacts between peoples. Tourist activity in Ukraine should become a branch of the specialization of the national and regional economy, an attractive kind of business.

4. Research methodology

The current task is to create a complex of positive impressions and feelings of a tourist in order to transform him into a loyal customer with the possibility of applying in the future to him the concept of CEM (Client experience management) (Biletska, 2012).

Establishing effective channels for a communication mechanism for providing information and creating

a positive image of tourism services requires a reassessment of the importance and role of marketing and its tools. The study of the problem suggests that marketing aspects of the tourism industry require the development of more “effective tools, a single management space, which can ensure the integrity of the management system of the market, the effectiveness of the relationship of its components, coordination and interconnection of tourism subjects” (Gorina, 2016).

It is important to study tourism as an integrated system that includes various subsystems: financial and credit, medical, transport, cultural and entertainment, health and recreational, informational and advertising, etc. The system approach in tourism gives an opportunity to come to the study of this social phenomenon from a philosophical, sociological, and psychological point of view. The analysis of the market for tourism services with the use of a systematic approach has allowed us to distinguish its structure, and also to substantiate a set of indicators of evaluation of its results.

The system approach allows us to take into account the variability of individual parameters of the system of marketing approaches to the market for tourism services, especially its behaviour in specific conditions, its uniqueness and unpredictability, the ability to adapt to changing conditions. An important feature of the system is its ability and desire for goal-formation, that is, the formation of goals within the system.

Let us note that the demand for a tourist product is unbalanced, prone to seasonal fluctuations, depends on many other factors, in particular, the geographic location of the region, political relations, socio-demographic, etc.

It is important to create a structural and functional model of a system of marketing approaches to the market of tourism services, the elements of which will interact with each other and will be aimed at informing the consumer about the range of services, establishing a communication mechanism for providing information, creating a positive image for a particular tourism service. In this context, the problem of the development of

channels and communication tools, the possibility of access to a range of sources on services for the use of innovative marketing technologies is actualized.

The structural-functional model of the system developed by us is a multilevel structure, which consists of factors, marketing methods and techniques, forms of realization of the tourist product, Figure 3. The mechanism of the formation of demand for tourist services by means of marketing technologies is determined by the peculiarities of consumption of

tourism services, implementation of certain factors (nature of consumption, stimulation of demand, and promotion of tourism services, etc.), determined by the marketing methods and techniques, in the first place, innovative, Figure 4.

Modelling, developing, and implementing models are powerful mechanisms for determining and achieving a new qualitative tourism services market. Modelling as a methodological principle and a method of scientific knowledge allows, through the perfect creation of the

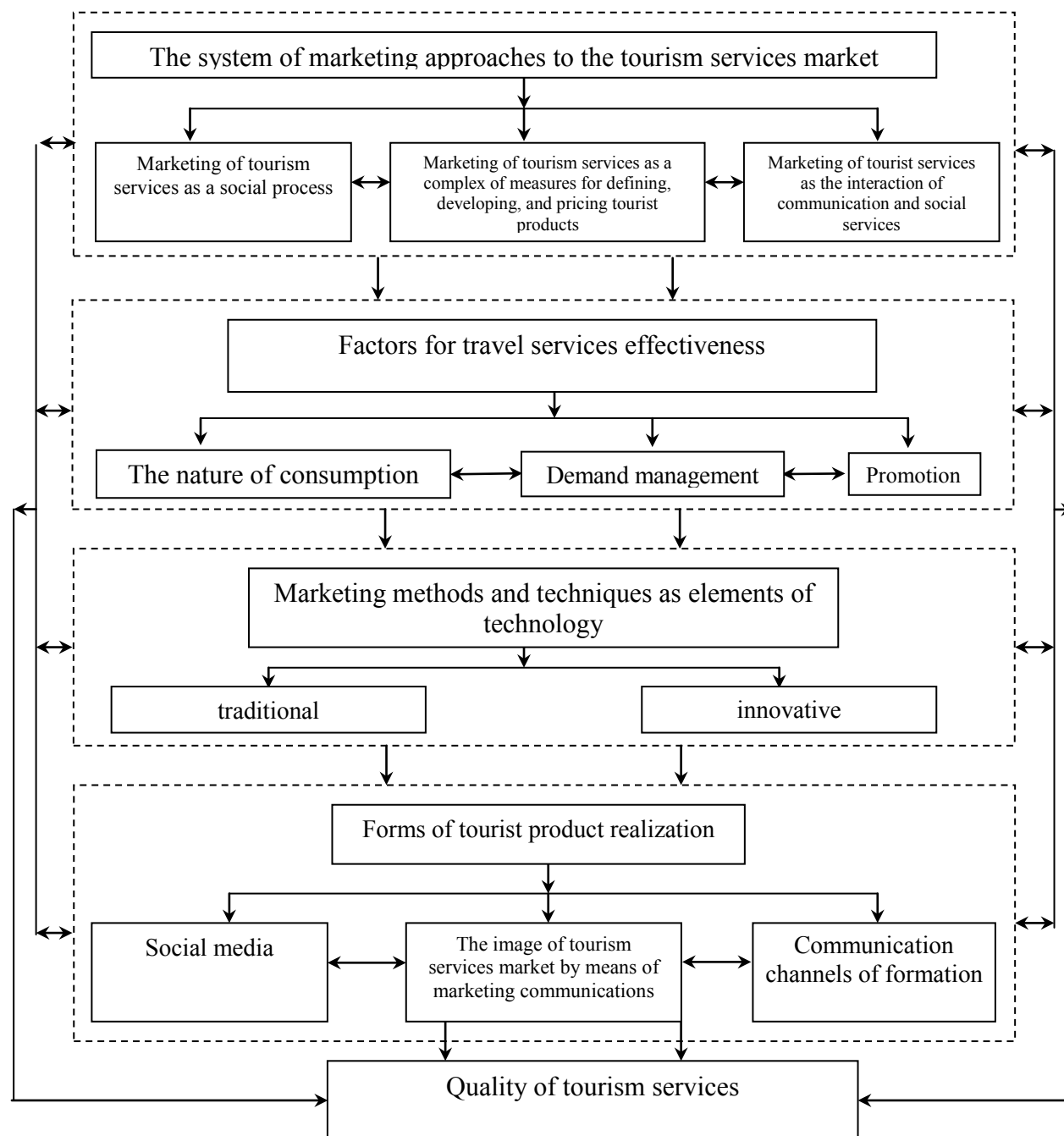


Figure 4. Structural-functional model of the system of marketing approaches to the tourism services market

Source: compiled by the authors

system, its structure to determine the directions of management activity for the adoption of an adequate solution. It has been shown that the condition of the successful functioning of the named system is the integration of certain components that provide the qualitative characteristics and properties inherent in this

system. Among the characteristics of complex systems, in particular, the system of marketing approaches to the market for tourism services, one of the most important is the necessity to manage it.

This process is carried out indirectly due to our organizational model of operational management of the

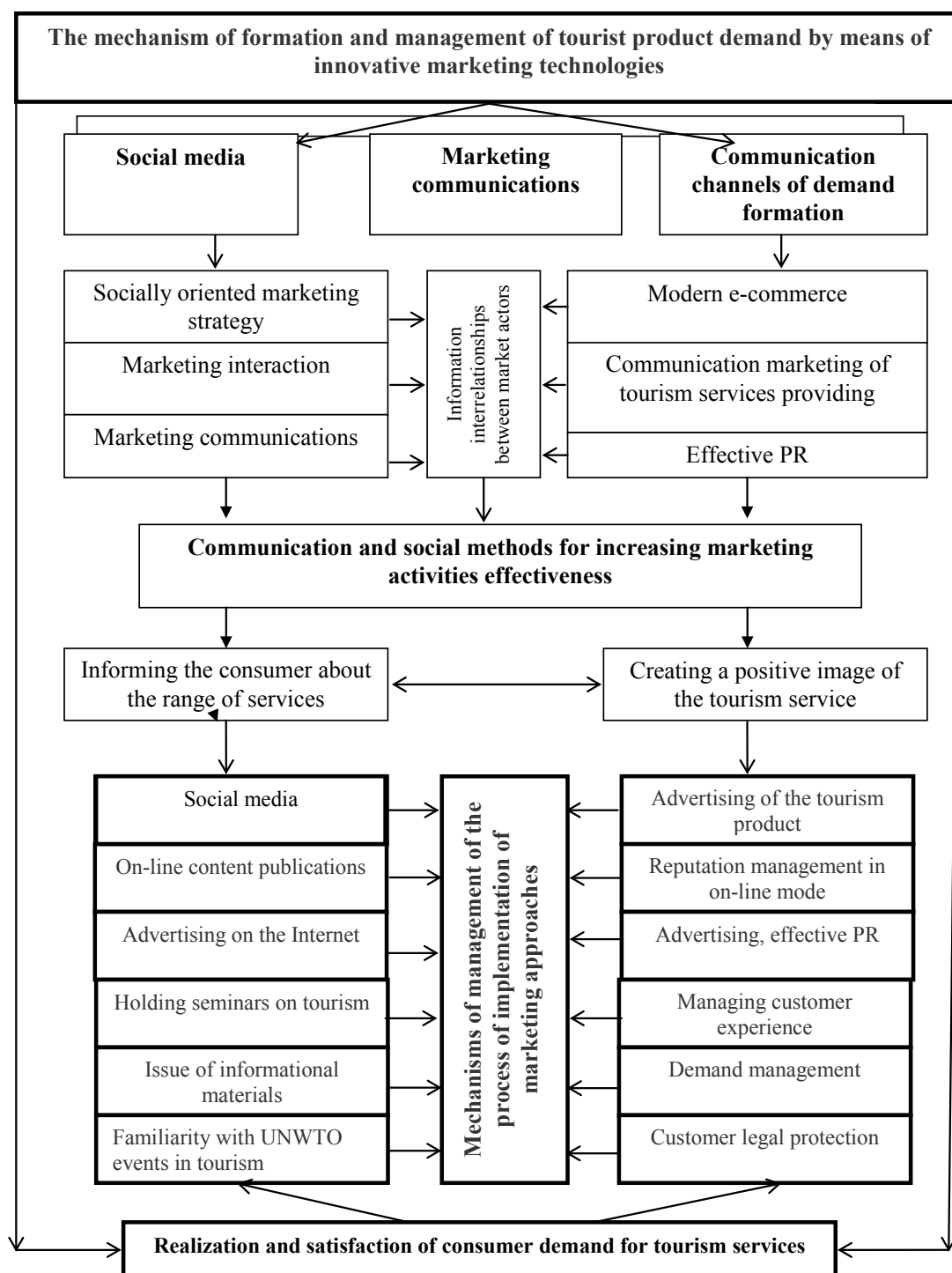


Figure 5. Model of the implementation process management of marketing approaches to the tourism services market

Source: compiled by the authors

process of implementation of marketing approaches to the market for tourism services.

The use of such a model allowed decentralizing the control effect on the process of effective implementation of tourism services, demand management, pricing, and promotion. We have identified effective mechanisms for the formation and management of demand for a tourist product: social media, marketing communications and communication channels for the formation of demand. They form the image of the tourism services market on the basis of establishing information relationships between market players (consumers, sellers, intermediaries). The components of the management model are also defined by communication and social methods of improving the effectiveness of marketing activities, which are inextricably linked with the main marketing objectives of the tourist enterprise: customer service satisfaction, increased number of loyal customers, increased profitability, etc. It is important to pay more attention to modern innovation-communication marketing technologies, which form the model of interaction of subjects in the market for tourism services. In particular, a significant role in creating a model of proficient service belongs to different forms of social media marketing (online content publishing, advertising on the Internet, social bookmarking services, etc.).

It is necessary to take into account the uniqueness of social media, namely the possibility of their interaction directly with the consumers of services. And also the fact (according to Worldometers) that the number of people having access to the Internet is growing rapidly, and in 2019 it could reach 7.6 billion people. In particular, 1.9 billion people are actively using social networks. More than 40% of the world's population is currently connected to the Internet, and by the end of 2017, about 2.9 billion users are forecast (Teletov, 2010). All this requires not only a revision of obsolete

approaches but also the construction of new modern marketing strategies for the development of the tourism market. One of the effective mechanisms for managing the process of implementing marketing approaches is the interest of consumers, the conquest of consumer attention by creating a positive image of the tourism service. We are talking about product promotion, effective advertising, consumers' experience, and demand management. It is important to coordinate the actions, optimize management decisions that will improve the quality of the tourism services provided.

5. Conclusions

Implementation of marketing approaches to the market for tourism services involves a socially oriented marketing strategy based on social and psychological factors promoting the tourist product. The mechanisms of influence on the formation and management of demand developed by us provide for a systematic approach to the market for tourist services.

The structural and functional model of a marketing system approach takes into account factors of the efficiency of tourism services, marketing methods and techniques, as well as forms of realization of tourist product that provide the quality of tourism services.

We have determined that the effectiveness of the functioning of the system of marketing approaches depends on the creation of a coherent management space in terms of the integration of its components. In the process of developing tools for implementing the components of a marketing system, we have identified the most effective management method. The model of managing the process of implementing marketing approaches to the market for tourism services developed by us will allow us to decentralize the managerial influence on demand, pricing, and promotion of the tourist product.

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COMPARATIVE ANALYSIS OF THE CUSTOMS REGULATION OF VEHICLE IMPORT IN THE G20 COUNTRIES

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Abstract. *The purpose of this article* is to conduct a comparative analysis of customs regulation procedures for the import of vehicles operating in the G20 countries, to determine the possibility of adapting and using their experience in order to improve the customs procedure in force in Ukraine. Since most researches of Ukrainian scientists mainly concern the adaptation of existing customs procedures to the requirements of the Ukraine–EU Association Agreement and the search for ways to solve the problem of shadow schemes of vehicle import, the selected research purpose is relevant. *The subject-matter of the study* is the procedures for customs regulation of the import of vehicles of the G20 countries. *Methodology.* To achieve this purpose, a set of general scientific methods was used that ensure the objectivity and validity of the results obtained, namely, methods of abstraction, comparison, analysis and synthesis, generalization. *Results.* The research results showed that Ukraine is far behind the leading countries in terms of implementing the standards of environmental and technical safety of imported vehicles. If compliance with the requirements of environmental safety, namely compliance with European standards, is still taken into account when importing, then the issues of technical safety are not regulated by the current customs procedure. Secondly, the system of taxes and payments that are paid in Ukraine upon importation, namely duty, excise duty, and VAT, does not provide for compensation for the negative impact of imported vehicles on the environment. Thirdly, comparing the practice of temporary importation of vehicles operating in the G20 countries and Ukraine has allowed highlighting a number of inconsistencies. So, in the G20 countries, only non-residents can use this regime in the vast majority. Citizens of the country are entitled to temporary admission only if strictly defined requirements are met. However, unlike Ukrainian practice, the very procedure for temporary admission implies the absence of requirements for payment of customs duties and other payments, regardless of whether the person who uses it is a resident or non-resident of the country. *Practical significance.* The conclusions made allow proposing the necessity to amend the current procedure by introducing the practice of confirming the conformity of imported vehicles with the technical requirements for their operation, increasing the tax burden on vehicles with low environmental efficiency, settling the issue of the availability of the regime of temporary admission of vehicles and strengthening control over compliance with this regime. *Relevance/originality.* Proposals for the adaptation and use of the experience of the leading countries in the field of customs regulation of import of vehicles are a way to prevent the negative phenomena in Ukraine in this area.

Key words: international trade, import, customs regulation, vehicles, G20 countries.

JEL Classification: F10, F13, F53

1. Introduction

At the present development stage of globalization, no country can remain economically successful without active participation in international trade processes. The development and strengthening of foreign trade relations remain the only effective method of ensuring the exchange of goods and services in order to meet the needs of consumers from different countries. Given

that the production of vehicles in Ukraine at this stage is underdeveloped, imports are the main means of saturation of the domestic market. In view of this, the consideration and study of the procedure for the customs regulation of imports of vehicles in order to improve it become of particular relevance. It should be noted that in Ukraine, active work in this direction is carried out mainly at the level of specialized customs and fiscal

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institutions, including the subordinated educational and research institutions. Issues of improving customs legislation, improving customs regulation procedures are actively investigated in the work of such scientists as Pryimachenko D. V., Dorofeieva L. M., Leheza Ye. O., Mazur A. V., Prus L. R., Ruda T. V., Slastonenko O. O., Lutsyshyn Z. O. and others. However, most studies in this area mainly concern the adaptation of existing customs procedures to the requirements of the Ukraine–EU Association Agreement and the search for solutions to the problem of shadow import schemes of vehicles. At the same time, the issue of studying the international experience of customs regulation of imports of vehicles of the leading countries of the world, the search for ways to adapt it to domestic conditions remains beyond the attention of the scientific community.

When preparing this article, our purpose was to carry out a comparative analysis of customs procedures for the import of vehicles operating in the G20 countries, to identify the possibility of adapting and using their experience in order to improve the current Ukrainian procedure.

2. Customs regulation of the import of vehicles in the G20 countries

The study of customs procedures for the import of vehicles operating in the G20 countries allows identifying a number of common features that are inherent to them. The first of them is the requirement for compliance of imported vehicle with current safety standards, which are designed to reduce the risk of harm to citizens and reduce the negative impact on the environment. In most of the countries under consideration, there is a severe penalty for violating the requirements that stipulates for a significant fine and/or imprisonment.

So, in Canada, the main statutory documents regulating these issues are the Motor Vehicle Safety Act (1993), Motor Vehicle Safety Regulations, and Motor Vehicle Tire Safety Regulations (SOR/2013-198). In accordance with the applicable procedure, Canada is allowed to import: a) vehicles purchased in the USA and, accordingly, after the registration in the Registrar of Imported Vehicles, must be inspected and certified to comply with applicable safety standards; b) other vehicles that comply with Canadian vehicle safety standards, or those that are not regulated, or are imported temporarily (Canada Border Services Agency. Memorandum D19-12-1, 2016).

In Australia, imported vehicle safety requirements are determined by the Motor Vehicle Standards Act (1989) and developed according to law Third Edition Australian Design Rules (2006). According to the rules, before importing any vehicle into Australia, it is necessary to contact the Department of Infrastructure, Regional Development and Cities to obtain Vehicle Import Approval, which confirms its compliance with the

approved rules and standards. Typically, the authorization procedure takes up to 20 business days. Moreover, the owner is responsible for ensuring that the vehicle meets the requirements for the biosafety of imported vehicles and does not contain asbestos. For vehicles equipped with air conditioning or refrigeration systems, there are requirements for the presence of an import license for emissions of ozone-depleting substances and synthetic greenhouse gases (Australian Government. Department of Infrastructure, Regional Development and Cities; Department of Home Affairs, 2018).

In Japan, such a basic document is Road Transport Vehicle Act (Law No. 185 of 1951), according to which it is prohibited to use a vehicle that does not meet the requirements for technical safety and emission level. The testing centre operating under the Ministry of Land, Infrastructure, Transport and Tourism of Japan is responsible for the inspection (Ministry of Land, Infrastructure, Transport and Tourism, 2018).

In the USA, a system of regulatory acts is developed that is designed to protect the domestic market from the import of inappropriate quality vehicles – it includes Motor Vehicle Safety Act of 1966, Vehicle Safety Compliance Act of 1988, Motor Vehicle Information and Cost Savings Act of 1972, and Motor Vehicle Information and Cost Savings Act of 1972 with corresponding amendments and additions (U.S. Customs and Border Protection, 2018). In general, vehicles may be imported in the USA under the age of 25 that meet Federal Motor Vehicle Safety Standards. It is also allowed to import vehicles older than 25 years, provided that the confirmation of their compliance with the applicable standards is not required (National Highway Traffic Safety Administration, 2018).

Since Germany, France, and the United Kingdom (the latter as of 1.08.2018) are EU members, respectively, there are uniform rules and requirements on the technical and environmental safety of vehicles in the territories of these countries. In 2007, Directive 2007/46/EC approved the European Community Whole Vehicle Type Approval – the only approach to obtaining a permit for the operation and use of vehicles in the EU. The validation of the vehicle's compliance with the applicable requirements is the receipt of the Certificate of Conformity, valid on the territory of all member countries. At the same time, this Directive (2007/46/EC, chapters IX, X) allows for providing member countries with national (National type-approval of small series) and individual approvals, which are valid only in the territory of only the country that issued them. As in the USA, old vehicles do not fall under current requirements, the age of which, depending on the type, is 10-25 years.

The second one is the requirement to pay taxes and fees on imported vehicles. The main tax payable upon import is an import duty, which is calculated on the basis of the customs value of the imported goods.

There are two main approaches to its calculation – traditional and alternative. According to the traditional approach, the customs value of the goods is determined as its contractual value, that is, the price actually paid or payable for goods if they are sold for export to the importing country. At the same time, the additional costs, such as, for example, commission fees to the seller, transport costs, etc., are included in the customs value. An alternative approach is used in case of the impossibility of using the traditional one. In this case, the customs value may be determined by the contract value of identical or similar goods imported into the country or by the estimated value (Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994, articles 1-24). Source of information about the cost of identical or similar vehicles can be the reference systems that have become actively distributed in a number of countries – in Canada it is Canadian Black Book, in EU countries – Eurotax, Glass's Guide, and Parker's Guide.

It is worth noting that Japan does not provide for the import duty on vehicles (Japan's Tariff Schedule, 2018, section XVII), while in other countries under consideration – Canada, Australia, the USA, Germany, France, and the United Kingdom – only imports from individual countries with which the agreements on simplification of customs regulation of export-import operations have been signed are exempted from duty. So, in Canada and the USA, duty is not paid if the country of origin of the vehicle is a member country of the North American Free Trade Agreement (North American Free Trade Agreement, Article 302). Similarly, customs duties do not apply to imports of vehicles in France, Germany, and the United Kingdom from other EU member states (Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union 2012/C 326/01, Article 30). The practice of reducing or completely eliminating customs duties is also applied by the countries that have signed bilateral agreements on trade and economic cooperation. For example, this practice applies when importing vehicles between the USA and Australia (Australia – United States Free Trade Agreement, 2005), Japan and Australia (Japan-Australia Economic Partnership Agreement, 2005), Canada and the EU (Canada-European Union: Comprehensive Economic and Trade Agreement, 2017). Note that this information is relevant as of August 1, 2018, and may be changed in course of time.

According to recent studies by Buettner T. and Madzharova B. (2018), the reduction of import duties and the introduction of additional payments (primarily sales tax) as a way to compensate for the loss of customs revenues is a general development tendency for world trade. Thus, among other payments used in the market of vehicles of the G20 countries, sales taxes, excise taxes, environmental and other fees are common. In Canada, there are charges for both national and local sales taxes.

So, owners of imported vehicles pay goods and services tax (GST); harmonized sales tax (HST) and/or provincial sales tax (PST). Additionally, taxes are paid for air conditioning and excessive weight of the vehicle (Canada Border Services Agency. Memorandum D19-12-1, 2016). Owners of vehicles with excessive fuel consumption are subject to taxation in Canada and the USA. Meanwhile in the USA, unlike Canada, the sales tax is exclusively local tax, the size and conditions of which vary depending on the state (U.S. Customs and Border Protection, 2018).

Australia provides for goods and services tax (GST), which is ten percent of the value of taxable imports and, in some cases, a luxury car tax (LCT). The latter is paid at a rate of 33% of the value that exceeds the defined threshold. For the fiscal year of 2018–2019, the threshold for the payment of luxury car tax is: a) for vehicles with low emissions and fuel consumption – 75,526 dollars; b) for other vehicles – 66,331 dollars (Australian Government. Department of Home Affairs, Australian Taxation Office 2018). A similar tax exists in the United Kingdom – owners of vehicles worth more than £40,000 must additionally pay £310 a year (Importing vehicles into the UK, 2018).

In Germany, France, and the United Kingdom, the main sales tax is value added tax (VAT), which varies from 19% to 20% in the countries concerned. Also, there is a tax on CO₂ emissions in the territory of the EU (Kunert Uwe and Kuhfeld Hartmut (2007), European Commission. Taxes in Europe Database v3). The practice of paying a sales tax also exists in Japan. When importing a vehicle into Japan, it is necessary to pay a consumption tax of 8% of the value and acquisition tax, which amounts to 3-5% depending on the type of vehicle and its destination. In Japan, as in Canada, the tax on the excessive weight of a vehicle is widespread – the so-called vehicles weight tax (National Tax Agency of Japan, 2018). As a number of researchers note (Lasse Fridstrom and Vegard Ostli (2017), M. Crippa, G. Janssens-Maenhout et al. (2016), Gang Xu, Tomio Miwa et al. (2015)), the application of environmental standards and additional payments, the size of which correlates with the level of environmental safety of vehicles, is a powerful tool used by the world's leading countries to control the internal market.

Special requirements are applied to vehicles temporarily imported into the territory of countries. In this case, it is usually not necessary to confirm the vehicle's compliance with applicable local standards and to pay any taxes or fees. The main requirement put forward in most countries when applying the temporary admission regime is the non-commercial use of the imported vehicle, the provision of guarantees, and its further removal from the country after the expiration of the temporary stay. The temporary import permit is also granted for vehicles imported for the purpose of their participation in exhibitions, demonstrations, tests, etc.

In Canada, the right to the temporary import of vehicles is provided to tourists and visitors (up to 12 months), to students (for the period of study), to persons with official work permits (up to 36 months). A similar procedure can also be used by Canadians who rent a car in the USA. In this case, the period of stay of a vehicle in Canada is, as a rule, up to 30 days (Canada Border Services Agency. Memorandum D19-12-1, 2016). In the USA, in addition to non-residents, the right to the temporary import of a vehicle can also be used by citizens of the country who work abroad and make a short-term visit to the USA (U.S. Customs and Border Protection, 2018).

The right to a temporary, up to 12 months, import of a vehicle on the territory of the country for tourists and temporary residents is provided for by the laws of Japan, Australia. In order to obtain permission for a temporary stay of a vehicle on the territory of Canada, Japan or Australia, you can use the procedure Carnet de Passages en Douane (Carnet de Passages en Douane. Carnet Country, 2018).

In the United Kingdom, Germany, and France, the period of temporary stay of a vehicle for non-residents can be up to 6 months. Exceptions to this rule are possible for certain groups of non-residents of the EU, namely students and persons working in the country. In some cases, the right to temporary importation of a vehicle may also be used by EU residents who use official transport services or use a leased vehicle, provided that the company providing the rental services is registered outside the EU (Importing vehicles into the UK, 2018, Temporary importation of a vehicle not-registered in the EU, 2018).

3. Customs clearance of imported vehicles in Ukraine

Consideration of the procedure for customs clearance of imported vehicles in force in Ukraine will be carried out in accordance with the abovementioned scheme.

1) Compliance with standards. According to the current legislation of Ukraine, customs clearance and subsequent state registration of imported new and used vehicles are subject to compliance with environmental standards. For the period from January 1, 2016, to December 31, 2019, vehicles imported to the territory of Ukraine are allowed not less than Euro-5 level, starting from January 1, 2020 – not lower than the Euro 6 level. A document that certifies the conformity of vehicles with the requirements of technical regulations and national standards is a certificate or other document confirming compliance, issued in accordance with the legislation of Ukraine, indicating to what level of environmental standards the vehicle conforms by the design (Euro-2 – Euro-6 or another level) (Pro dejaki pytannja vvezennja na mytnu terytoriju Ukrajinu ta rejestraciji transportnykh zasobiv: Zakon Ukrajinu, 2005).

2) Taxes and payments. In accordance with Article 49 of the Customs Code of Ukraine (CCU), the customs value of goods transiting through the customs border of Ukraine is the value of goods used for customs purposes, based on the price actually paid or payable for these goods (Mytnyj kodeks Ukrajinu, 2012). When importing a vehicle into the territory of Ukraine, it is necessary to pay: a) an import duty, the value of which for most types of vehicles is 10%. When importing from EU countries, the duty rate is set lower than the established in the schedule of reduction of customs rates stipulated by the Ukraine–EU Association Agreement. Reduced, in accordance with the Free Trade Agreement between Canada and Ukraine (2017), is also a rate of import duty on vehicles from Canada; b) in the case of attributing a vehicle to excisable goods, an excise tax is also charged, the rates of which are set in paragraph 215.3 of Article 215 of the Tax Code of Ukraine (TCU). The size of this tax depends on the age of the imported vehicle, the type of fuel used, the engine volume and power; c) value-added tax at a rate set by Article 193 of the TCU. At present, the amount of this tax is 20% of the amount of customs value, import duty, and excise tax (Pro Mytnyj taryf Ukrajinu: Zakon Ukrajinu, 2013; Podatkovyj kodeks Ukrajinu, 2010).

3) Mode of temporary import of a vehicle. Temporary importation into the customs territory of Ukraine of personal use vehicles for a period of up to one year is allowed both to citizens and non-citizens of Ukraine. Vehicles imported into the territory of the country under this regime cannot be used for commercial purposes, be ungrouped or transferred to the ownership, use or disposal of other persons. At the same time, when non-resident citizens use this regime, the calculation of customs payments and the provision of guarantees are not provided subject to registration of such vehicles in the authorized bodies of foreign states. However, resident citizens, in accordance with the current legislation, are obliged to pay all customs payments which, under the law, are to be paid upon the import of such vehicles and to provide a written commitment to re-export such a vehicle outside the customs territory of Ukraine, in compliance with the applicable terms (Mytnyj kodeks Ukrajinu, 2012).

4. Conclusions

Considering the purpose of our research, it is worthwhile to focus on the following aspects. Firstly, Ukraine is far behind the leading countries of the world in implementing the standards of environmental and technical safety of imported vehicles. If compliance with the requirements of environmental safety, namely compliance with European standards, is still taken into account when importing, then the issues of technical safety are not regulated by the current customs procedure. In fact, checking the conformity

of the vehicle to the technical requirements is carried out already at the stage of its registration, which, in our opinion, contradicts the practice of the countries under study. Secondly, the system of taxes and payments that are paid in Ukraine upon importation, namely duty, excise duty, and VAT, does not provide for compensation for the negative impact of imported vehicles on the environment. According to the analysis conducted, additional payments for excessive fuel consumption, CO₂ emissions are the norm for the leading countries of the world. Thirdly, comparing the practice of temporary importation of vehicles operating in the G20 countries and Ukraine allows highlighting a number of inconsistencies. So, in the G20 countries, only non-residents can use this regime in the vast majority. Citizens of the country are entitled to temporary admission only if strictly defined requirements are met. In addition, the very procedure for temporary admission

implies the absence of requirements for the payment of customs duties and other taxes and fees, regardless of whether the person using it is a resident or non-resident of the country.

Given the above, we believe that the introduction of amendments to the procedure for customs clearance of imported vehicles in Ukraine is extremely relevant. However, it should not be a reaction to the problems that have become exacerbated but a way to prevent negative phenomena by adapting and using the experience of the leading countries. This will be facilitated by the introduction of the practice of confirming the compliance of imported vehicles with the technical requirements for their operation, increasing the tax burden on vehicles with low environmental efficiency, resolving the issue of access to the regime of temporary admission of vehicles, and strengthening control over compliance with this regime.

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COMPARATIVE LEGAL ASPECTS OF ENSURING THE ECONOMIC SECURITY OF COMPANIES IN RESOLVING CORPORATE CONFLICTS IN UKRAINE AND THE UNITED STATES

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Abstract. *The aim of the article is to reveal the legal nature of corporate conflicts and ways to overcome them in Ukraine and the United States. The subject of the study is corporate conflicts caused by the corporate relations that arise between the owners of corporate rights, as well as the relationship between the owners of corporate rights and management bodies of the company. Methodology.* The study is based on general scientific and special-scientific methods and techniques of scientific knowledge. The logical semantic method enabled to determine the content of the concepts of “corporate conflict” and “greenmail”. The comparative legal method enabled to compare the doctrinal approaches to this issue. The same method enabled to analyse US law regarding the subject matter. The normative dogmatic method enabled to interpret the content of legal regulations of domestic and foreign legislation that regulate the issue of corporate conflicts and ways to overcome them. The system-structural method enabled to analyse objective and subjective causes of corporate conflicts. Methods of analysis and synthesis enabled to distinguish features of corporate blackmail as the cause of corporate conflicts. The method of legal modelling enabled to develop proposals regarding greenmail prevention in Ukraine. *Practical implications.* Studies on the issue of greenmail in the US helped to develop recommendations for prevention of greenmail in Ukraine, as well as to identify issues requiring further consideration and research. *Relevance/originality.* The concepts of “corporate conflict” and “greenmail” are defined. The objective and subjective causes of the occurrence of corporate conflicts, the reasons for their occurrence, as well as the subjective component of the parties to the corporate conflict are analysed. The absence of the legal definition of the concept of greenmail and the effective mechanism of its prevention is stated, therefore, appropriate recommendations to prevent its occurrence are formulated.

Key words: corporate conflict, conflict of interest, objective causes, subjective causes, greenmail, corporate blackmail.

JEL Classification: G34, M14, O16

1. Introduction

The company's development and economic stability and security are predetermined by the rapport and constructive dialogue between the owners of the company's corporate rights. In many modern countries with a developed market economy, due to legislation, judicial practice, and corporate relations development, the principles of overcoming corporate conflicts with the least economic risk for companies themselves have been created. In this regard, the study of the legal aspects of the mechanism for overcoming corporate conflicts using the experience of the United States is relevant and crucial to regulate on its basis the corporate relations of companies in countries with developing economies, in particular, Ukraine. The emergence of a market economy in Ukraine has led to the emergence of a large number of business partnerships and the active development of corporate legal relations.

In Ukraine, the advent of a market economy has led to the occurrence of a large number of business partnerships and the active development of corporate legal relations. The formation of new social relations has caused corporate conflicts. In most cases, the main causes of such conflicts are the inadequacy of the legal mechanism for ensuring the rights of the corporate relation participants and the lack of proper legal culture in corporate management.

It should be noted that the elucidation of the legal nature of corporate conflicts and ways to overcome them have been and remain relevant among scholars. However, despite the relevance of the issue, the revelation of the legal nature of corporate conflicts in Ukraine remains inadequate.

The aim of the article is corporate conflicts caused by the corporate relations that arise between the owners of

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corporate rights, as well as the relationship between the owners of corporate rights and management bodies of the company.

2. Presentation of the main material

The researchers define the concept of corporate conflict differently, especially as regards the delineation of this concept with the notion of "conflict of interest."

According to A. Bobryshev and E. Bokhanov, a corporate conflict can be defined as disagreements (disputes) between shareholders (investors) and managers regarding shareholders' rights violation that leads or may result in lawsuits against the company, controlling shareholder or managers in decisions taken by them, early termination of powers of management bodies, substantial change of shareholders. H. Aleksieiev argues that the concept of "corporate conflict" must be distinguished from the concept of "conflict of interests" (Alekseev, Bobryshev, Bokhanova, 2002).

A. Zhornokui claims that, unlike a corporate conflict, the term "conflict of interest" does not mean a situation of a corporate conflict, but a situation that has a high probability of a corporate conflict (Zhornokui, 2007).

In addition, a conflict of interest is defined as a situation in which a managerial decision is chosen under contradictions between the good of the company and own interest of the manager.

Summarizing the views of the scientists, corporate conflicts can be defined as conflicts that arise between the participants in corporate relations, directly related to corporate interests and those that cause negative consequences for both the enterprise and its participants or pose a real threat to their occurrence.

The occurrence and development of corporate conflicts are due to four groups of factors and causes: objective, organizational and managerial, socio-psychological and personal. The first two groups are objective, the third and fourth are subjective (Danilova, 2010).

Understanding the objective and subjective nature of the causes of corporate conflicts in the management of a joint stock company is very useful for their prevention, for the development of optimal strategies for the shareholders' behaviour during typical conflicts. The objective causes for their occurrence are mainly the circumstances of the social interaction of shareholders, which have led to the collision of interests, thoughts, etc.

For example, the board of directors of a joint-stock company has a vacancy for a post of a board member, which is claimed by several persons from managerial personnel, who, in accordance with the current legislation, are in labour relations with the company. Since the vacancy is one and applicants are several, the interests of the latter coincide objectively, that is, regardless of their desire. Such a coincidence can lead to a conflict.

The subjective causes of corporate conflicts are related mainly to the individual psychological features of the opponents who choose the conflict, and not some other way of resolving the objective contradiction. In this case, the shareholder does not consider a compromise solution, does not try to discuss this contradiction together with the opponent to remove it, but chooses a strategy of counteraction. In our opinion, the reasons for which the shareholder chooses a conflict are subjective in the context of the above.

In our opinion, the reasons why a shareholder chooses a conflict in this context are subjective.

Even under superficial consideration of the nature of the relations between objective and subjective causes of conflicts, the specificities are evident, such as a clear distribution of objective and subjective causes of conflicts or their opposition, obviously, is unjustified. Any objective cause is important in the occurrence of a particular conflict situation, including due to the subjective factors.

It should be noted that approval of the regulations on the joint-stock company management by the general meeting of shareholders could contribute to reducing the number of corporate conflicts through the settlement of situations, which may cause corporate conflicts, in these documents.

However, in most cases, the elaboration of such instruments depends on the personal initiative of joint-stock company officials, that is, on the subjective factor. Therefore, the majority of objective causes are to a certain extent subjective, and the subjective motives of conflicts are ultimately objectively determined.

As a rule, the subject-matter of a corporate conflict in joint stock companies is the ownership of the shares of the company and rights that these securities give (participation in management, participation in the distribution of company profits, etc.). The interests of shareholders are aimed at revenue from the company's activities. Revenue can be realized in two ways: dividends and increase of exchange rate of shares (Moroz).

Studying the legal nature of corporate conflicts, the subjective composition of the parties to the corporate conflict should be considered.

The persons who may be participants in a corporate conflict can be grouped into:

- majority shareholders;
- minority shareholders;
- members of the Board of Directors (Supervisory Board) and managers.

Majority shareholders are focused on the long-term prospects of company development and minimal risks. If they have to choose between dividends and profits capitalization, they tend to prefer profits capitalization, as it contributes to the sustainability and strategic plans of the company's development.

The interests of minority shareholders differ. They are interested in short-term prospects, such as revenue from

their participation in the company now. Therefore, the main interest of minority shareholders (dividends) will prevail over profits capitalization.

Meanwhile, company managers do not face the risk of losing their property. If a company becomes unprofitable, managers lose their jobs, but not their property. If such activity is profitable, managers receive a bonus. Managers risk not their property, but the property of owners (shareholders). Moreover, since managers are not owners, the risk of abuse on their part in relation to both the company and its owners exists. The conflict between managers and owners is the most frequently encountered corporate conflict (Iorhachova, 2011).

The study of the legal nature of the conflicts that arise in corporate relations reveals that one of the reasons for the occurrence of corporate conflicts is the abuse of corporate rights, in particular, greenmail, or in other words, corporate blackmail.

In the specialized literature, the term greenmail is interpreted as a procedure for acquiring a significant number of shares in a company to challenge it with the threat of hostile takeover with a view to further reselling these shares at a premium price for the targeted company (Bielikov, Hraivoronskyi, Kholchenkov, 2009).

For example, the greenmailer can offer shareholders or the joint-stock company itself to buy any batch of shares at "a bid price", that is, for a higher and unacceptable price. In case of failure, the greenmailer begins a war against this joint-stock company. Sometimes this is done through various manipulations with the right to convene a general meeting of shareholders. In particular, the joint-stock company is flooded with requirements for the election of the new board of a joint-stock company, fraudulent documents are used, numerous lawsuits are filed and continuous legal proceedings begin.

Actions for securing a claim and other proceedings in a court session may be used by greenmailers in their favour. In some cases, this is done in order to reduce its capitalization and make it more sensitive to hostile takeovers by striking the business reputation of an economic partnership. In other cases, greenmailers act for the main competitor of their chosen victim, for example, before a large tender for order distribution. Provided the value of the company's business is much smaller than its assets (buildings, land), the third possibility occurs.

In addition, greenmail also refers to individual cases of counteracting the reorganization of the company. It should be noted that other means of greenmailers' actions exist.

Evidently, the relationship between the joint-stock company and a greenmailer is the relationship between the company and its shareholder, within which the shareholder abuses his/her rights.

Thus, the following main features of corporate blackmail can be distinguished: 1) this is a form of interference in the activities of a joint-stock company;

2) based on the fact of possession of a certain number of shares, which does not allow having a significant impact on the management of a joint stock company; 3) the interference is aimed at hampering the operating activities of the joint-stock company and, consequently, creating certain negative consequences for the company and (or) its shareholders, including their finance and property; 4) the purpose of such actions is the sale of the block of shares at a premium price to the controlling shareholder or the company itself or to receive other property provision; 5) while the actions of corporate blackmailers are formally legal, they can be qualified as abusive rights (Gololobov, 2004).

In the United States, where corporate blackmail was used for the first time, different approaches to understanding and assessing greenmail exist both at the legislative level and in the legal science community. In 1984, US corporations spent over \$3.5 billion to reacquire securities from unwanted shareholders at premiums totalling over \$600 million above market prices (Williams, 1985).

The main factor that caused the growth of cases of companies' repurchases of their shares at a premium price was the tendency for corporate raiders to use market openness and the possibility of negotiated acquiring of shares for the accumulation of shares that enabled to circumvent more stringent requirements of the legislation on a tender offer (Hartnett).

In the US, at the federal level, no regulations ban greenmail. Moreover, greenmail is possible and regulated in detail by the current Federal Tax Laws of the United States. Thus, according to the Internal Revenue Code, the income, which is recognized as greenmail, is taxed at 50 percent (Greenmail).

Therefore, US legislators decided to "punish" greenmailers, imposing a tax burden on them, and making, in effect, corporate blackmail economically inappropriate for greenmailers. Meanwhile, it is also a good way to replenish the state treasury. However, in practice, this legislative measure fails to provide protection for the corporation itself, which has to pay huge premiums in case of a corporate takeover threat. It should be noted that only in a few states US state laws provide for restrictions on the purchase of shares above the market value in certain cases (Molotnikov, Garslian).

In New York, it is provided for that no domestic corporation shall purchase more than ten percent of the stock of the corporation for more than the market value thereof unless such purchase is approved by the affirmative vote of the board of directors and a majority of the votes of all outstanding shares at a meeting of shareholders. However, the prohibition shall not apply when the corporation offers to purchase shares from all holders of stock or for stock, which the holder has been the beneficial owner of for more than two years (New York Consolidated Laws). Similar provisions are in the

states of Minnesota (Minnesota Statutes) and Arizona (Arizona Revised Statutes).

Therefore, even in the specified states, greenmail is not banned, only certain procedural restrictions are imposed. This can be explained by the fact that states cannot establish regulations in any way contrary to federal law. However, these restrictions still affect the state of affairs in corporate blackmail.

The main effect of these restrictions on greenmail is that companies become less appealing to raiders due to the elimination of one of the means of proceeds (Molotnikov, Garslian). Moreover, according to scientists, these provisions may restrict speculation in shares and prevent the decrease in the value of shares, which often follows the redemption of shares in such situations (Profusek, Bober, Johnson, 1986).

The analysis of the provisions of the Civil Code of Ukraine (Tsyvilnyi kodeks Ukrainy), as well as the provisions of the Law of Ukraine "On Joint Stock Companies" (Pro aktsionerni tovarystva), enables to state the absence of a legal definition of the concept of greenmail and effective mechanism for its prevention. This is because in Ukraine, the phenomenon of greenmail has not yet become widely used since corporate relations are developed insufficiently in comparison with the USA, however, the possibility of the significant distribution of greenmail in the future should not be excluded.

Therefore, it should be noted that the modern development of corporate relations is accompanied by the occurrence and existence of various corporate

conflicts, which leads to the violation of the rights of participants of corporate relations.

It is worth agreeing that corporate conflict and conflict of interest are different concepts, although they are interconnected.

The basis of any corporate conflict is objective organizational, managerial, socio-psychological, and personal factors.

3. Conclusion

Summarizing the approaches of researchers to solving the problem of greenmail leads to the conclusion that in order to prevent the occurrence of greenmail, every legal entity in Ukraine should develop a set of protection that would include:

- minority shareholders minimization;
- compliance of the internal corporate documents of the company with the current legal regulations;
- maximum compliance with the rights of shareholders provided for by law;
- control over access to insider information of the company;
- prevention of corporate intelligence, third-party influence on management.

Considering that the mechanism of corporate rights protection in Ukrainian companies is in the process of formation, it would be advisable to use the positive experience of the US and American companies in combating this phenomenon to prevent greenmail.

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WAYS OF CONFRONTING CORRUPTION AND BRIBERY IN THE BODIES OF THE STATE AUTHORITY

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Abstract. The article outlines the problems of corruption and bribery in public authorities in Ukraine. The destructive influence of corruption provokes and deepens the social crisis, undermines the image of the Civil Service of Ukraine, and holds back the socio-economic development of the country. Currently, corruption in Ukraine is called one of the most significant threats to national security. *The aim of this article* is to substantiate main directions and means of confronting corruption and bribery in the system of state authorities in Ukraine. The object of the research is the social relations that arise in the process of counteracting corruption and bribery. *The methodology of the research* is based on the fundamental provisions of the public administration theory, as well as on the concepts developed both by the Ukrainian and foreign researchers and practitioners aimed at preventing and counteracting corruption. Main theoretical provisions and conclusions of the article highlight effective measures of preventing and counteracting corruption in state authorities in Ukraine. The results of the research can be useful for the public administration bodies when developing and implementing anti-corruption programs or laws and regulations on the issues of forming an anticorruption consciousness of citizens and state authority officials. *Value/originality.* The article outlines the economic-mathematical model of “bribe maximization”, which takes into account the limitations of the possibility of offering and agreeing to receive a bribe. The model is the basis, which proves that the most effective way of fighting corruption is streamlining the efforts of the authorities on creating a competitive environment: “economic benefit – the risk of punishment”. These conditions decrease the officials’ interest to receive bribes since their size ceases to compensate for the risk of disclosure, detention, and punishment. Meanwhile, the series of other practices are also important, namely: building a holistic legal system based on integrity; introduction of mechanisms of accountability and responsibility of officials; cooperation with civil society and the private sector; adaptation of international experience to national realities; identification of “high risk zones” for diverting there main efforts and resources.

Key words: bribery, corruption, manifestations of corruption, counteraction to corruption, responsibility, civil servants, state authorities.

JEL Classification: E61, Z18

1. Introduction

Corruption as a social phenomenon has emerged a long time ago. It may seem that the birth of corruption was probably either simultaneous with the birth of the human race or happened at least right with the emergence of power and financial relations. Today, some studies consider corruption as a necessary tool for “wheel lubrication”. From this perspective, corruption helps to overcome excessive bureaucratic constraints, ineffective provision of public services and tough laws, especially in the countries where there are weak and poorly functioning state institutions. On the other hand, corruption can lead to a significant reduction in economic performance. This is due to rent-seeking,

increased transaction costs and uncertainty, inefficient investments and incorrect allocation of production factors (Hanousek, 2015).

The importance of studying corruption in the government bodies is necessitated by the vast amount of negative consequences that it is associated with. Corruption provokes and increases social crisis and undermines the image of the civil service in Ukraine. Moreover, it hampers the development of Ukraine, adversely affects the economic processes, prevents the establishment of a constructive dialogue between the authorities and the public, and destroys the foundations of building the rule of law in the country and civil society. It also violates the principles of the rule of law, justice

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and equality, responsibility for the committed acts and fair competition. Transparency International, a global anticorruption organization, identifies a very high level of corruption in Ukraine, which is the consequence of the country's overall political, social, and economic problems. Such negative phenomena are quite inherent for a country that is in a state of crisis.

According to the Corruption Perceptions Index, which has been developed by Transparency International (2016), by the corruption index Ukraine in 2016 was on the 131st place; in 2015 – 130th place; 2014 – 142nd place; 2013 and 2012 – 144th place. In 2011, the index dropped to the mark of 152. The situation was better in 2010 – 134th place; in 2009 – 146th; in 2008 – 134th; in 2007 – 118th; in 2006 – 99th place; in 2005 – 107th place; in 2004 – 122nd place; 2003 – 106th place; 2002 – 85th place; 2001 – 83rd place; 2000 – 87th place; 1999 – 75th place; 1998 – 69th place.

Among the European countries, Ukraine has been recognized as the most corrupted state almost every year. So, the problems of preventing and counteracting corruption are among the most pressing problems for Ukraine today. The scale of its spread constitutes a real threat to national security and democratic development. The fight against corruption is in the limelight of state institutions, nongovernmental organizations, the media and common citizens. The reforms, which are currently being implemented in Ukraine (the judicial, tax, and administrative), all have an anticorruption bias. Moreover, the criminal justice reform together with the improvement of the mechanisms of public access to information and obtaining legal aid are gradually forming a national anticorruption system, which will be more efficient and of higher quality.

The need for scientific substantiation and the development of technologies for preventing and counteracting corruption in the bodies of state authorities of Ukraine stress the importance of this research. This leads to the introduction of comprehensive measures in this sphere, namely: improvement of national legislation in the context of compliance with international anticorruption standards; increase in the effectiveness of the corruption prevention and counteraction system; reduction of corruption in the system of law-enforcement bodies, other bodies of state power and local governments; reduction of the shadow economy; development of an active public consciousness for the prevention and counteraction to corruption.

2. Literature review

Many researchers have investigated the problem of corruption and the ways of counteracting it. The first research of corruption and the term “corruption” as a “disease” of a state organism at first appeared in the writings of N. Machiavelli, C. Montesquieu, and J.-J. Rousseau (Ilienok, 2013).

So, Rose-Ackerman, considering the existence of corruption in various spheres of public life, was the first to introduce the term anticorruption institutionalism (Rose-Ackerman, 2003, p. 77). Melnyk (2004) defines the social nature of corruption, its developmental trends, and negative consequences. The author analyses the elemental content of the mechanism of corruption and characterizes corruption offenses. Alforov (2011) focuses on the mechanisms of counteraction to corruption in the internal affairs bodies. Kokhan (2013) identifies political corruption as a conflict phenomenon and examines its influence on the interaction of society and the state. Charron, Dahlström, & Lapuente (2016) investigate corruption in the field of public service. Flejchuk (2008) points out priority areas, sectors and the goal-oriented means to reduce the shadow economy and combat corruption in the system to strengthen the economic security of Ukraine in the context of globalization. Nevmerzhytskyj (2008) sees corruption as a complex socio-political phenomenon. He identified the causes and conditions that feed corruption, develops mechanisms and methods of limiting its manifestations. Bratkovskyj (2010) has presented comprehensive conceptual foundations for the formation of the organizational and managerial mechanism of counteraction to corruption in Ukraine as the main factor of increasing confidence in public authority.

Despite the fact that the phenomenon of corruption has been discussed in the works of many researchers, some areas remain not completely researched, namely: the specific nature of corruption in the system of government bodies, its disorganized and reorganized influence on the society, the role of civil society in counteracting the corrupt practices. The above-mentioned draws the need to develop mechanisms for finding a way out of this catastrophic situation with the help of introducing effective measures for the prevention and counteraction to corruption in state authorities.

The aim of this article is to study the main areas of fighting corruption and bribery in the system of state authorities in order to develop further constructive proposals for solving these problems in Ukraine.

3. Method of research

The research process has entailed the use of a set of general and special methods which resonate with the purpose of the article, namely: induction, deduction, comparison, and systematization of the preconditions for the emergence of corruption. With the help of the logical-semantic method and the method of ascending from abstract to concrete, the authors developed the conceptual apparatus; the essence of the concept “corruption” received a comprehensive description. The structural-logical and system-functional analysis

methods helped to identify the causes of corruption in Ukraine, as well as to predict the consequences of the subsequent impact of corruption in Ukraine. The creation of the economic-mathematical model entailed usage of a systematic approach, modelling and generalization. The model takes into account the limitations on the possibility of proposing and agreeing to receive a bribe, as well as a systematization of technologies for combating corruption and bribery in the system of Ukrainian state authorities.

4. The theoretical basis of the fight against corruption as a source of destructive power

The modern world perceives corruption as a destructive phenomenon, which is present in many fields, including politics and public administration. It is a destabilizing factor in public life, which threatens national security and impedes the development of democracy and growth of the population's well-being. The impact of corruption on competition in commodity markets is directly related to economic security in major sectors of the economy, industry, including engineering (Bublyk et. al., 2017). A characteristic feature of corruption is the conflict between the actions of an official, the interests of the employer and the interests of society.

Currently, corruption in Ukraine can be described as a special kind of corruption – a crisis-type corruption. On the one hand, it is generated by the social crisis in Ukraine, and on the other – it is the result of the crisis and, at the same time, it forms the basis (foundation) for deepening the crisis. This kind of corruption has the ability to stop any reforms in the country. Moreover, it may cause alienation of Ukraine in the world. Effective counteraction to corruption will largely depend on how profoundly and comprehensively society will understand the philosophy of the corruption phenomenon.

Corruption is an ancient phenomenon. It manifests in all spheres of human life and depends on the level of society's culture, national mentality, legal consciousness, religious, and ethnic traditions.

Corruption as a social phenomenon emerged with the creation of power relations between humans. In the age of tribes and tribal alliances and the formation of communities/first nations, leaders needed to negotiate with other unions, solve interethnic and intertribal conflicts, engage in various management activities, which reduced their personal contribution to the economic activity of the primitive (sub-state) society. Thus, the changed form of participation in tribal life created the need for certain remuneration for the time spent on social affairs in the form of other benefits and certain results of work. As a consequence, the tribes that were a part of the union and received protection were obliged to make gifts. Also in order to avoid armed

attacks and looting, neighbouring tribes tended to establish contractual relations in the form of redemption from the conquest by other tribes.

In such a way, the introduction of the tradition of “tribute – gift – bribe” arose almost with the birth of human race on Earth and acquired signs of a systemic phenomenon with the separation of functions of management in social or economic activities.

The essence of such a phenomenon as “tribute – gift – bribe” is the unity of the three elements:

- 1) appropriate favourable reaction of the person receiving the goods;
- 2) the reward for the desirable act of the “recipient”;
- 3) the withdrawal of income from the family/tribe/individual.

At every evolutionary stage of society's development “a society without a state → a state-organized society”, a person organized one's life in order to adapt oneself in the best possible manner to the changing conditions of life and satisfy one's growing needs through the mechanism of redistribution of goods. Such redistribution took place in accordance with the established norms of morality and customs. With the development of the exchange, this phenomenon diverged into two components: “gift” and “tribute – bribe”. The latter is now only given to persons who occupy a certain social position, which in legal science, as a rule, is called “post-government power” or in the economics – “discretionary”.

It should be emphasized that at this stage, the concept “tribute – bribe” cannot be considered to be a harmful phenomenon. On the contrary, it plays a positive role since it frees persons who exercise control in a state-owned society from everyday household concerns. This is a pre-corrupt practice, which is encouraged by the norms of primitive morality.

On the one hand, the “tribute – bribe” implies the reaction of someone who is bribed in a form of a favour for a certain person. On the other – the one who gives a “tribute” cannot expect full compliance and only can hope for it. The latter gave the impetus to the transformation of “tribute – bribe” into “official” (“service”, social) privileges, which according to the custom (tradition), should be granted to a person who occupies a certain social position in a sub-state society.

This allows drawing several conclusions:

- a prerequisite for corruption is the possibility of obtaining benefits due to one's social situation. The pre-corruption custom in the form of “tribute – gift – bribe” was not a socially harmful phenomenon, but on the contrary, was encouraged by the norms of morality, which stimulated further evolution of societies. In this regard, it was an element of the initial legal mechanism of redistribution of public goods;
- pre-corruption custom generates “official” (“formal”, social) privileges, which according to the custom (tradition) should be provided to a person who occupies a certain social position in a state-owned society.

At present, such a complex phenomenon as corruption has transformed itself into a threat to political stability, sustainable development of the state and its national security.

Taking into account the existing views on “corruption”, we will try to consider a system of anti-corruption measures in public administration.

It is difficult to define corruption as it manifests itself in various forms. Thus, corruption (from the Latin *corrumpere* – to spoil) in a more broad sense is an unlawful activity, which consists in the use by officials of their rights and official capacities for personal enrichment; graft and corruption of public and political figures. Any person who has the authority to distribute certain resources not belonging to him personally, at his own discretion (official, deputy, judge, law enforcement officer, administrator, examiner, doctor etc.) may be subject to corruption actions. The main stimulus for corruption is the possibility of obtaining economic profit, and the main deterrent factor is the risk of disclosure and punishment.

In accordance with the Law of Ukraine on Prevention of Corruption (Law of Ukraine on Prevention of Corruption, 2014), corruption should be understood as “the use by a person of a given authority or capabilities connected with it in order to obtain the improper advantage (benefit) or accept such a benefit or accept the promise/offer of such benefit for oneself or others or, accordingly, the promise/offer or provision of improper benefit to a person, or at his request to other natural or legal persons, in order to persuade the person to misuse his/her official powers or related capabilities.”

According to the abovementioned definition, corruption in the narrow sense should be considered as any action aimed at achieving or obtaining any privileges or benefits through illegal conspiracies and bribes.

Corruption, therefore, is a negative phenomenon that poisons the social life of any state. The problem of corruption remains one of the most pressing for the system of state authorities. It hinders development, but at the same time, prevention and effective corruption counteraction measures are not usually based on an understanding of its origin. That is why it is necessary to develop specific technologies and methods that can reduce the manifestations of corruption and risks caused by its appearance.

The literature reveals several channels, through which corruption affects the medium and long-term growth potential of the country, namely (Terzi, 2015):

1. Domestic investment. Corruption not only reduces the return on investment but also creates uncertainty in the return on investments.

2. Corruption directly reduces foreign direct investment. This is particularly problematic as these processes are connected with the international transfer of know-how technology and management, and hence the pace of technological progress, which is the main source of long-term growth.

3. Competition. Corruption can weaken antimonopoly regulation, create barriers for new “players” or create other barriers that keep the privileges of the established firms. The weaker competition will affect productivity and innovation.

4. Entrepreneurship. As business reward diminishes, potential entrepreneurial talents can be targeted at alternative operators in the process of renting. The result will be a reduction in startups and innovations and, ultimately, a decrease in growth rates.

5. Quality of public expenditures. Corruption will affect the level and composition of public expenditures. First, it will increase the value of goods and services purchased by the public sector, reducing the funds needed for effective public use. Secondly, this will affect the cost structure, as resources will be directed to those areas where corruption can be more easily hidden.

Counteracting corruption as a specific activity in the field of public administration includes a system of measures including: political, legal, organizational, managerial, ideological, socio-psychological, and others.

The system of anti-corruption measures entails reducing the scale of corruption, changing the nature of its manifestations, and limiting its impact on social processes. This increases the risk for the corrupt officials. It also presupposes removing social preconditions for corruption, the causes and conditions of corruption; identifying, terminating, and investigating corruption; bringing to justice individuals who are guilty of committed corruption offenses; eliminating the consequences of corrupt acts.

The rule of law and legitimacy, as well as comprehensive implementation of legal and informational measures with the priority on prevention, should be the cornerstone of activities on combating corruption. The prevention activities, in particular, should include such principles as the inevitability of responsibility for the corruption offense, openness and transparency of the activities of state authorities and local self-government bodies.

At present, the situation in the field of prevention and counteraction to corruption is characterized by several factors. On the one hand, there is a “new” agenda of state authorities against corruption, on the other – lack of concrete results. The problem is that the prevention process affects a fairly wide range of social relations, including the spheres of social life, where modern society does not have a direct influence. Often, economic reasons cause “corrupt behaviour”. It is quite obvious that the state government can only partly affect economic processes in the country, especially in the context of the economic crisis. To a lesser degree, it is capable of influencing culture, the constituent part of which is the legal culture. Thus, the low level of legal culture, and more precisely legal nihilism, is the direct and immediate cause of corrupt behaviour.

According to macroeconomic and political economy studies, corruption is the biggest obstacle to economic growth and development, which can jeopardize any transformation.

The main causes of corruption in Ukraine are:

- lack of political will to overcome corruption;
- lack of moral standards in the population (and as a consequence of officials), indifference;
- the imperfection of the judicial system;
- lack of transparency and inadequate level of accountability of state bodies;
- lack of effective punishment system for the bribes;
- convenience for many entrepreneurs and ordinary citizens to solve their problems with officials using bribes.

The consequences of the subsequent impact of corruption in Ukraine may be the following:

- the growth of socio-political tension (even the emergence of a revolutionary situation);
- further criminalization and spread of the shadow economy;
- disruption of the financial and economic system of the country;
- devaluation of moral values of the society;
- the decline in the positive international image of the country, deterioration of its political, economic, social, and legal positions on the world arena;
- loss of opportunities for the country to enter prestigious international organizations;
- international political and economic isolation etc.

The future development of the country is connected with the need to counteract corruption. This question is also important for social progress, normal life, and prevention of other challenges and threats. Ukraine's powerful potential in the economic, political, legal, and social spheres allows relying on the effective implementation of anticorruption policies and the effectiveness of anticorruption programs.

However, despite loud statements about the active counteraction to corruption, the bribery cases in the country are increasing. The average size of the bribe in 2016 was approximately 45,000 UAH, in 2015 – 40,000 UAH, in 2014 – 30,000 UAH. The dollar rate increase is partly responsible for the increase in the sum (Transparency International Ukraine, 2016). Thus, according to courts' criminal proceedings on corruption charges and cases of administrative offenses, the following numbers are evident: 3261 people were prosecuted on charges associated with corrupt activities during 9 months of 2017. This number includes charges for corruption offenses – 788 people, and for the administrative offenses connected with corruption – 2473 persons. This is 40.2% of the total number of cases brought to court (8,109 cases) (Verhovniy Sud Ukrainy, 2017).

This stipulates the necessity of introducing the most severe punishment and creating conditions for reducing the desire for taking bribes. For example, in

a case of violation of the law on corruption, the guilty person should be deprived of the right to work in state institutions, lose all social privileges, including pension and social security, and pay large fines. In some countries, for example, bribery is equated with a violation of the Constitution and is considered treason.

International experience shows that all socioeconomic systems are not fully immune from corruption, only the amounts and manifestations change. Thus, corruption cannot be eliminated in any particular state or at some stage of historical development. The reduction of the level and the localization of corruption may be among the maximum positive achievements in this sphere, including the decrease in the level of corruption risk manifestations and their impact on various social processes. In Western countries, this process is called control over corruption (Ilienok, 2013). Eliminating bribery is absolutely impossible since the excessive implementation of control methods is very costly and countless efforts should be spent on complete elimination of corruption. In addition, hypertrophied strengthening of the fight against corruption deprives the administrative system of flexibility and the population – of civil liberties. Comparing the losses from corruption with the costs of fighting corruption, one can strive to achieve a certain optimal level of corruption, which reflects the smallest aggregate losses.

5. Economic and mathematical modelling of corruption situations and their susceptibility to countermeasures

At the same time, the effectiveness and progress of the fight against corruption is assessed in reality considering efficient allocation of resources and taking into account economic efficiency; political priorities of the government; the effective work of the state authorities to achieve the intended results and the use of mechanisms that ensure responsibility for the achieved results.

We believe that the most effective means of combating corruption is to create a competitive environment "economic benefits – the risk of punishment". This should reduce the interest of officials in obtaining bribes since their size ceases to compensate for the risk of detention and disclosure.

This can be proved using the economic-mathematical model of maximizing the bribe, which takes into account the limitations regarding the possibility of offering and agreeing to receive a bribe:

$$G = V - P - K, \quad (1)$$

where V – is the size of a bribe that an official can receive, P – the expected amount of damage from the punishment of an official (for example, in the case of a court order to impose an arrest on property or impose a fine); K – the costs of control activities (for example, public control and internal audit). The size of a bribe V can be represented by formula (2):

$$V = \gamma \cdot v \cdot D, \quad (2)$$

where v – the size of the bribe (part of the revenue from the project, administrative service etc. which the official demands); D – revenue from the implementation of all projects, administrative services etc., which are coordinated by an official; $v \cdot D$ – potential bribe revenue of an official;

$\gamma = \frac{v_0 - v}{v_0}$ – the probability of a person's consent to give a bribe ($0 < \gamma \leq 1$);

v_0 – the maximum amount of the bribe, which the person agrees to give ($0 < v_0 \leq 1$).

By combining all variables, we receive the profit model of the corrupt official:

$$G = v \cdot D \cdot \frac{v_0 - v}{v_0} - P(v) - K(v) \quad (3)$$

The extremum is used to determine the maximum possible profit of the official (the zero derivative $G' = 0$):

$$G' = D \cdot \frac{v_0 - 2v}{v_0} - P'(v) - K'(v) = 0 \quad (4)$$

In such a way, the function has an extremum when:

$$v = \frac{v_0}{2} \left(1 - \frac{P'(v) + K'(v)}{D} \right) \quad (5)$$

Let's consider possible cases:

1. If the fine for receiving a bribe and the cost of control actions does not depend on the size of the bribe ($P' = 0$, $K' = 0$), then the maximum income from bribes is received by an official on the following condition:

$$v_{\max} = \frac{v_0}{2}. \quad (6)$$

Let's check if it is a maximum or a minimum of the function by finding a second derivative:

$$G'' = D \cdot \left(1 - \frac{2}{v_0} \right) \quad (7)$$

If $0 < v_0 \leq 1$, then $G'' < 0$, accordingly, this shows that we received the value of the part of the bribe when the function of income is maximized.

The result can be interpreted as follows: an official will receive maximum bribe if it forces to give half of the maximum possible bribe size ("to share equally"). In this case, the maximum income of the official equals to (8):

$$G_{\max} = \frac{v_0}{4} \cdot D \quad (8)$$

Trying to get a bigger amount of bribe will reduce the probability of the consent to a larger bribe, and if to take less – the total amount of the received bribes decreases.

2) The second case is more interesting and complicated.

If the sum of the marginal expenses from the punishment (court orders based on the results of the revealed corruption manifestations by the controlling bodies) is potentially more possible than the bribe revenue from the project implementation, administrative service etc. received by an official, meaning $P' + K' \geq D$, then

$$v = \frac{v_0}{2} \left(1 - \frac{P' + K'}{D} \right) \leq 0, \quad (9)$$

It means that there is no such bribe amount that will allow an official to maximize one's income.

If $P' + K' < D$, then the maximum value of G (the revenue of the official) exists when the size of the bribe has certain value $v < \frac{v_0}{2}$ reduced to the multiplier $\left(1 - \frac{P' + K'}{D} \right)$.

Let's check if it is a maximum or a minimum of the function. In order to do this, one can find a second derivative.

$$G'' = D \cdot \left(1 - \frac{2}{v_0} \right) - P''(v) - K''(v) \quad (10)$$

If $0 < v_0 \leq 1$, then the first summand is negative. In this case, the form of the curves becomes important – $P(v)$ and $K(v)$.

If $P'' > 0$ and $K'' > 0$, then $G'' < 0$, and the function of bribe income of an official have maximum (Figure 1).

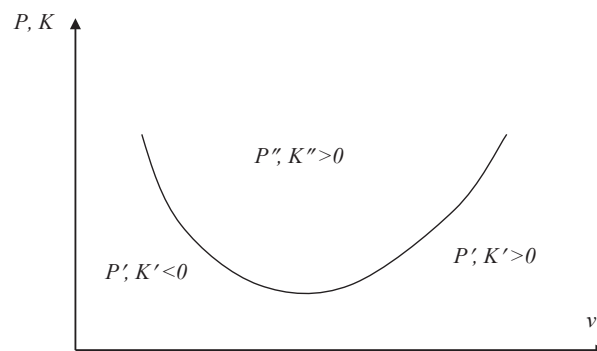


Figure 1. Dependence of the official's losses on the size of bribe when $P'' > 0$ and $K'' > 0$

It should be noted that the value of marginal costs $P' < 0$ and $K' < 0$ can indicate that the expected amount of damage from the punishment of an official P and the cost of control actions K decrease with the increase in the size of the bribe, which should not have occurred in real life, although it is possible from a mathematical point of view.

If $P'' < 0$ and $K'' < 0$, then G'' can have both positive and negative values (Figure 2).

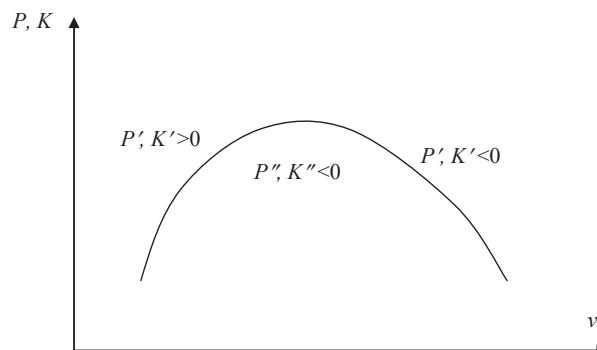


Figure 2. Dependence of the official's losses on the size of bribe providing that $P'' < 0$ and $K'' < 0$

If $P''(v) + K''(v) > D \cdot \left(1 - \frac{2}{v_0} \right)$, then $G'' < 0$, and again there is an opportunity to maximize profits (Figure 3).

Otherwise, if $P''(v) + K''(v) < D \cdot \left(1 - \frac{2}{v_0}\right)$, then $G'' > 0$. It means that the function will have a minimum value, which indicates that it is impossible to maximize profits.

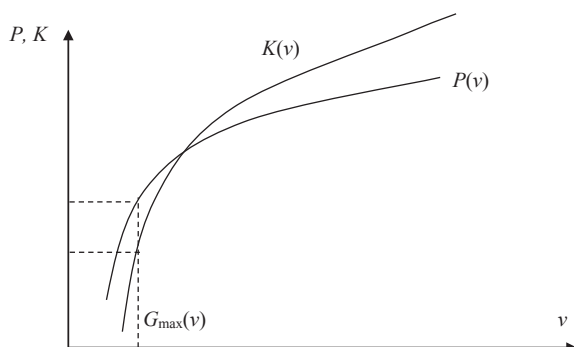


Figure 3. Determination of the profit of an official G_{\max} providing that $P' > 0$ and $K' > 0$

The analysis shows that the problem of corruption can be resolved only with the introduction of comprehensive administrative (coercive) measures, which often have restrictive and repressive character. In the first place, they provide for extremely stringent control over the actions and incomes of officials and a high degree of fines and penalties depending on the size of the bribe.

This is quite evident from the geometric meaning of the derivative: the value of the derivative at the point is tangent to the angle of inclination of the tangent at this point. Accordingly, the greater the value of the possible revenue from the implementation of projects (the provision of administrative services), the greater should be the value of the tangent, and even more so the angle of inclination (Figure 4).

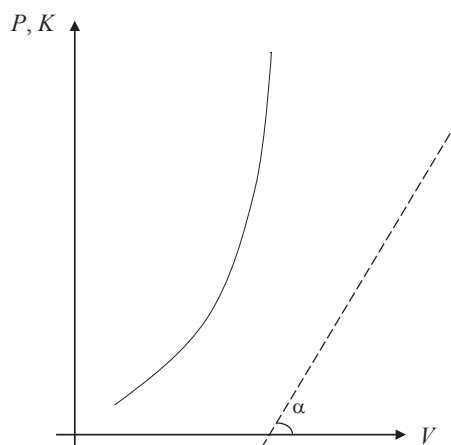


Figure 4. The geometric sense of determining the size of loss of an official

In addition to strengthening the control-regulatory function and “punitive” influence as an appropriate action of the state to the committed illegal actions by an official, political will of the authorities is required to fight corruption. The authorities should direct their efforts to the comprehensive implementation of

the provisions of anti-corruption legislation and the practical application of technologies and methods of corruption counteraction and bribery.

According to the World Bank expert P. Landell-Mills (2013), anti-corruption legislation is formed by laws on combating corruption, extortion, and bribery; on the financing of political parties, as well as laws aimed at curbing corruption, in particular: on conflict of interests; introduction of free access of citizens to public information; on guaranteeing the protection from criminal prosecution of people who report cases of corruption (Landell-Mills, 2013).

The technologies of fighting corruption and bribery may be grouped in accordance with their spheres as follows:

- political technologies for combating corruption – aimed at ensuring transparency of the decision-making by state bodies of all levels and bodies of local self-government;
- ideological technologies for combating corruption – aimed at legal education and awareness creation for the society to be aware of the damage resulted from corruption, the recognition by the state and society of the fact that corruption is a threat to national security;
- legal technologies for combating corruption – work with current legislation to bring it in line with the norms that form the anticorruption policy;
- organizational and technical technologies of combating corruption – aimed at improving the material provision of civil servants; implementation of systemic and well-considered personnel policy;
- institutional anti-corruption technologies – aimed at creating an effective institutional system for combating corruption and ensuring effective institutional counteraction, serving as the organizational basis for a holistic mechanism for ensuring economic law and order and maintaining economic and criminological security;
- socio-economic technologies of combating corruption – aimed at reducing cash circulation, expansion of modern electronic means of calculating the implementation of modern forms of reporting, which facilitate control over the movement of funds and complicate the possibility of giving bribes in cash; commercialization of a part of social (including communal) services; delegation of solving social tasks to civil society institutions; bringing together the real and official economy of various sectors and social institutions.

Thus, in order to overcome corruption, it is not enough to develop the economy and create anticorruption institutions. It is also necessary to promote the political will of the authorities, the efforts of which are aimed at the integrated implementation of technologies and methods of combating corruption and bribery.

Firstly, it is necessary to implement technological advances in order to reduce the number of personal contacts between citizens and government officials.

This will help to increase transparency standards and simplify the task of ensuring effective monitoring of the quality of the provision of administrative services. It should be noted that the use of state-of-the-art technology for state anti-corruption policy will increase the overall efficiency of public administration.

However, it should be borne in mind that technological development requires the involvement of more talented and competent performers, linking the use of technological advances with the involvement of new personnel (Piketty, 2014).

6. Discussion

The literature shows two opposing views on the use of the methods of combating corruption. Proponents of the first position (Haraschuk, 2010; Melnyk, 2004; Nevmerzhytskyj, 2008) argue that the fight against corruption is necessary first and foremost through the implementation of economic and social reforms, that is to create conditions under which individuals who are potentially corrupt refrain from committing acts because they are more interested not to commit an illegal act than to commit it. The amount of the benefits they can receive as the result of the illegal activity is much less than they receive from a state for carrying out their assigned tasks. Supporters of such opinion believe that main negative factors are the low standard of living of civil servants and persons who are authorized to perform state functions; high prices for goods and services; destructive tax policy of the state, which makes it easier for a manufacturer to “buy” a civil servant rather than pay taxes etc. A somewhat similar opinion is expressed by Paskhaver (2014). He notes that the successful fight against systemic corruption in Ukraine involves initiating the implementation of fundamental economic and political measures and then deploying the whole arsenal of anticorruption technical means. The reciprocal sequence of actions is not only ineffective but also socially and politically dangerous (Paskhaver, 2014).

However, it is highly necessary to stop further spread of corruption in the country as the degree of corruption of the state apparatus threatens the existence of a democratic system. Therefore, the administrative methods should be used to detect bribery and ensure the inevitability of punishment for committing a corrupt act. This may stop the growth of corruption.

7. Conclusions

The systematization of corruption problems with state authorities and economic-mathematical modelling of the corruption situations proves the following: under the current conditions in Ukraine, the most optimal means to combat corruption should have a focus on the formation of competition based approach “economic benefit – the risk of punishment”. It should contribute to reducing the interest of officials in obtaining a bribe and destroy the propensity to commit corruption. This, accordingly, stipulates an increase in the control-regulatory function and “punitive” influence as an appropriate action of the state and its bodies on committing unlawful actions by officials. However, “punitive” measures, even the hardest ones, do not affect the underlying causes of corruption as a negative social phenomenon which lie deep in the minds of Ukrainians and in the behavioural stereotypes. Therefore, one of the main goals in the fight against corruption should include the formation of an anti-corruption model of behaviour in society, based on anti-corruption legal awareness. Repressive and preventive methods of fighting corruption should be well-balanced.

Ukrainian new national anti-corruption model includes an institution where preventive and repressive functions are combined. Moreover, several specialized institutions that combine several preventive functions were created. However, there was no massive attack on corruption. The main reason for the ineffectiveness of these institutions, in most cases, might be their consulting and advisory nature, vagueness and duplication of powers, as well as the dependence of their work on the will of senior officials. Among other reasons, there might be the unwillingness of the country’s leaders (the President, the Head of the Parliament, the Prime Minister) to overcome the oligarchic influence on the authorities. It is not an uncommon practice to use the quota principle and not the professional qualification while appointing to the executive positions in state bodies, law enforcement agencies, prosecutors’ and customs’ office. There is also a general unwillingness to check civilservants on “wealth-income” principle. Taking into consideration current situation in state authorities and local self-governments in Ukraine, despite the creation of numerous bodies to prevent corruption, it will be impossible to overcome systemic corruption in the near future without changing the political elite.

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A CONCEPTUAL FRAMEWORK TO APPLY FINANCIAL ENGINEERING AT THE ENTERPRISE

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Abstract. The development and continuous complication of financial instruments through the integration of technology and management methods lead to an increasing role of financial engineering to ensure the efficient activity of enterprises. The use of financial engineering at the present stage allows business entities to comprehensively solve the most pressing problems, from the liquidity crisis and to the lack of resources to implement long-term goals. In view of the fact, this direction of research has not yet received wide distribution in the domestic scientific literature. Thus, the definition of the conceptual foundations for the functioning of the financial engineering system in combination with the refinement of its essential characteristics is an urgent scientific task. *The purpose of the article.* The article aims to justify the conceptual provisions of financial engineering as an independent scientific and practical direction of economic research. *Methodology.* Methodological principles on which the study is based contain the application of a set of universal scientific methods and specific methods of scientific knowledge, including: the method of scientific abstraction in determining the characteristics of the innovative component of financial engineering; the method of system-structural analysis in justifying the diagnostic functions of the financial engineering of an enterprise, and the method of analysing time series when assessing the development of the options market in Ukraine. *Value/originality.* The article describes the essence of financial engineering. It is substantiated that financial engineering is to create innovations in the form of financial products, processes, technologies, and institutions in order to obtain financial benefits from their practical use in the activities of the enterprise. The fundamental difference between the concepts of “financial management” and “financial engineering” is disclosed. The characteristics and theoretical significance of financial engineering as independent scientific and practical areas of economic research are analysed. Modern approaches to the definition of objects, methods, information base, and the results of financial engineering are systematized. Financial engineering is considered as the process of designing, developing, and implementing innovative financial instruments. The characteristic of using financial engineering is given on the example of options trading. The features of the development of the options market in Ukraine are analysed. It was determined that the development of the domestic options market requires first of all the formation of practical skills in the use of derivative financial instruments by financial engineering methods.

Key words: management, financial system, financial engineering, diagnostics, organizational changes, improvement, liquidity.

JEL Classification: G11, G29, G39, H19

1. Introduction

In modern conditions, the main purpose of financial management is to maximize the market value of the enterprise. From the point of view of the income approach to business valuation, the market value is formed as a set of discounted cash flows calculated by intervals of the forecast period. These streams are formed as a result of the current investment and financial activity of the enterprise. In this regard, the enterprise

has the task of managing financial resources, including the management of cash flows.

To solve this problem, financial engineering is used, which combines a set of methods and technologies that allow you to effectively manage finances in order to increase the value of the enterprise. Technologies that are used in the framework of financial engineering combine the financial subsystem of an enterprise and the financial instruments of the capital market. This allows the

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company to solve a number of financial problems: from a liquidity crisis (lack of working capital) to an investment crisis (lack of financial resources for the implementation of long-term development programs). One of the elements of the redistribution of risks, profitability, liquidity is financial engineering. It allows enterprises to get a number of advantages when correctly applied: increase the value of the company, increase profits, ensure financial stability, balance cash flows, and the like. For the national economy, financial engineering is a new element that economic entities rarely use in their activities. Positive foreign experience of its use requires from state authorities, domestic enterprises, and financial intermediaries to more actively master the tools of financial engineering, which will stimulate the development of the Ukrainian economy in general and economic entities in particular.

In the European Union, the basic rules for the implementation of financial engineering are governed by the articles of Regulation (EC) No. 1083/2006, No. 1080/2006, No. 1081/2006, and No. 1828/2006 (as amended by Commission Regulation (EU) No. 1236/2011), which induces financial engineering tools for enterprises (venture capital funds, guarantee funds and credit funds etc.).

In Ukraine, the process of organizing the market for financial instruments is still ongoing and, unfortunately, there is an incomplete legislative base of regulation implementation of financial engineering, as in leading countries of the world. Currently, the implementation of financial engineering is regulated by the Tax Code of Ukraine, the Civil Code of Ukraine, the Law of Ukraine "On Securities and Stock Market", the Law of Ukraine "On State Regulation of the Securities Market in Ukraine" and other regulatory documents.

2. Analysis of recent research and publications

The scientific works are devoted to the study of the features of the financial engineering system, including the goals, subjects, object, principles, and tools of financial engineering. The research of individual elements of financial engineering by scientists (Kim, 1993; Marshal, Bansal, 1998; Kraskevich, Selivanova, 2016; Mashliy, Laba, 2016) analysed the concept of "financial engineering" using a structural approach, which gave it the opportunity to come to the conclusion that modern scientific literature does not contain a complete definition of this concept, especially in defining the purpose and methodology of introducing financial engineering in the financial activities of economic systems. In this regard, the definition of the conceptual foundations of the functioning of the financial engineering system in combination with the refinement of its essential characteristics is an urgent scientific task.

Hammer M. and Champy J. (Hammer, Champy, 1993) believe that the key question of reengineering consists of four key elements:

1. A focus on fundamentals. Addressing the issue of precisely what the corporation does, why is it done in a present way, and what are the tacit rules and assumptions embedded in present practices. Reengineering ignores "what is" and concentrates on "what should be."

2. A radical redesign element. Reengineering is about reinventing the business – not making superficial changes or marginal enhancements to the old ways of doing things.

3. The potential for dramatic results. Reengineering leads to quantum leaps in performance – not incremental improvements.

4. A business process orientation. Reengineering evolves around business processes – not tasks, job descriptions, people or structures. A business process takes an input or inputs and generates an output which is of value to the customer. A business process only works if it generates added value, not an internal activity.

Fortunately, innovations in telecommunications, information technology, and financial engineering offer the practical prospect for multiple channels for the financing of economic growth. Multiple channels for capital raising are a good idea in terms of greater assurance of supply at competitive prices. They also offer the prospective benefits of competition to be the best one in a given environment at a given point in time (Merton, Bodie, 2005).

The purpose of the article is to substantiate the conceptual foundations of financial engineering as an independent scientific and practical direction of economic research.

3. Conceptual foundations of financial engineering

Financial engineering should be considered as a set of economic relations that have monetary characteristics and provide functional actions for making, implementing, and optimizing financial and organizational decisions in the course of reforming, current functioning, and development of an enterprise based on innovative elements. It seems appropriate to analyse the relationship between financial engineering and financial management since innovative development is one of the goals of financial management, with the result that financial management methods can be used as financial engineering methods.

For a clearer definition of the relationship and fundamental differences between financial management and financial engineering, a comparative description of their components and elements should be made. Both concepts involve the use of an object management system. The objectives of financial management are divided into tactical and strategic. The objectives of financial engineering can be formulated in a similar way since they are considered depending on the result

to which the application of financial engineering is directed (Kraskevich, Selivanova, 2016).

Differences in financial engineering and financial management are manifested in the fact that financial management is essentially a continuous process, the goals of which are interconnected and are adjusted to reflect the situation and the result obtained earlier. The goals of financial engineering are final, clearly defined, and may not be related. In this case, the whole process is aimed at achieving one goal, as a result of which the need for financial engineering, as in a particular product, ends. As a result, such phenomena as risks and profitability cannot be an object of financial engineering since they are manageable and integral components of the enterprise's activity. It is financial management that should be focused on these factors, which can be transformed according to their qualitative characteristics using the tools of financial engineering.

Consequently, scientific and practical interest represents the main fundamental positions inherent in financial engineering. Consideration of the principles of construction and operation of financial engineering involves consideration of the leading provisions of its operation. The construction of financial engineering on the basic provisions of finance makes it possible to apply the scientific approach of transforming the functional positions of finance in the fundamental provisions of financial engineering. The relevance of the application of financial engineering is manifested in the scientific and practical terms, in the sectoral and subjective scale. The functional purpose of finance in the formation of monetary funds is becoming a fundamental position of financial engineering as a technologically instrumental basis for making financial decisions in the field of providing the means of the operation and development of an enterprise.

The theoretical significance of financial engineering is implemented through its isolation as an independent scientific and practical research direction. This requires the formulation of the goal of financial engineering as a complex criterion for making financial decisions of an enterprise. The goal of financial engineering is to see the integration of the enterprise's activities, aimed at improving the quality of strategic and tactical financial decisions in all areas of business, is achieved by concentrating efforts on the priority areas of the company's activities. This target emphasizes the long-term period of the enterprise, points to ways to increase financial results, takes into account the interests of the owners. This takes into account the aspect of uncertainty and risk (probability of loss) when making and implementing financial decisions.

Information base of financial engineering should be updated financial and management reporting of the enterprise. Sectoral and regional analytical materials can be used. Reliability must unambiguously be ensured. However, the relative indicators of the financial condition of the company cannot be the result

of financial engineering since they are calculated and their value depends on a number of factors (Kraskevich, Selivanova, 2016).

Thus, the engineering process should be directed to influence precisely these initial factors, and the efficiency of engineering use, in turn, can be measured using the values of these relative indicators. In addition, it should also be noted that the reasoning of economists as a starting point is the driving force for changes in the direction that is determined by the financial decision.

The financial decision in financial engineering acts as a result of the economic actions of managers and specialists of the enterprise on the basis of a sample of several options. It should be borne in mind that the above-mentioned persons should be guided by the principles of expediency and rationality, take into account the available funds, internal and external factors affecting the operation of a particular company. In the course of the formation and implementation of a financial decision in financial engineering, it goes through several stages. First, there is an operational or problem situation that requires a financial decision. Then the database is collected and processed for the next stage – the preparation and development of a financial solution. Preparatory work determines the financial goal. A program of measures to implement a financial decision is consistently drawn up, a selection of financial instruments, levers, and management techniques is carried out.

Mainly, scientists identify the methods of financial engineering as the creation of a fundamentally new method or a combination of existing methods to obtain new properties. However, creation and combination are only the names of the processes that are achieved with the help of certain tools and are based on the use of a number of mathematical, statistical, and computational methods. Given this, it is advisable to distinguish the following groups of financial engineering methods in accordance with the expected result:

- mathematical, statistical and other quantitative methods: in the design, development, distribution, association – to achieve a fundamentally new financial situation; when modified, combined – to change certain features of the initial financial situation of the enterprise;
- financial management methods – to reduce risk and achieve a certain level of enterprise profits (Kraskevich, Selivanova, 2016).

An important step in financial engineering is also determining the result of its use. To do this, it is advisable to divide the expected result from the application of financial engineering into two main parts:

- a fundamentally new, innovative financial situation or product that is qualitatively different from the initial one and before which certain tools were applied;
- a financial situation or a product that does not have essential differences from the original, but some properties of which are more favourable for the subject of the application of financial engineering.

From the point of view of the economic content of the result, it is possible to single out the following elements: an innovative product, a new organizational structure for financial management, relative indicators of the financial condition of an enterprise (profitability, liquidity etc.).

Thus, the product of (financial) engineering is innovation. Innovation is “investment in innovations” in the form of the achieved results from the development of a new process, product or service in practice. Innovation is some kind of innovation that has not been encountered before: a new industrial design, an intellectual discovery, an invention, a method for meeting the needs of society, and that sort of thing. However, innovation should be viewed as the ultimate achievement of innovation, which is embodied in a new or improved product, has become competitive in the market; in a new or improved technical and technological process, found practical use in the economic activity.

In summary, conceptually financial engineering can be defined as the process of creating innovations in the field of finance. However, this characteristic of financial engineering does not fully reflect its content but gives only a general idea of its essence. Therefore, special attention should be paid to the analysis of the works of domestic and foreign authors on this topic to summarize the existing conceptual approaches to the functioning of the financial engineering system.

In our opinion, one of the most complete interpretations of financial engineering is the definition, which includes projection, the development and introduction of innovations or the search and application of new approaches to solving financial problems using already known innovative financial instruments and technologies in order to achieve specific financial goals by enterprises. On the other hand, a number of researchers emphasize the practical side of financial engineering as an activity. They reveal the mechanism for creating financial innovations, which is presented either in the form of combining and decomposing existing financial instruments or in the form of modifying the inherent characteristics of existing financial instruments (Marshal, Bansal, 1998).

Expanding the scope of application of financial engineering, Kim T. (1993) defines it as “unpredictable changes in the form of a new financial product, payment system or organizational structure for the provision of new financial services.” Thus, changes can be expressed in the form of a new financial product, payment system or organizational structure. At the same time, it is very important to point out their diversity and originality, which determines their innovative nature (Hammer, Champy, 1993). This allows us to talk about innovations not only in the field of financial instruments but also about institutional innovations in the financial market. This view reflects the current level of development of financial engineering and its scope the most.

At the same time, an alternative approach to interpreting the conceptual foundations of financial engineering is extremely common. It is based on the assumption that financial engineering is closely related to risk management. This position is quite reasonable, especially given the fact that the rapid growth of risks in the implementation of the activities of companies has become one of the key factors for the emergence and development of financial engineering. At the same time, risk management, including their minimization, is one of the possible ultimate goals of developing and implementing financial innovations, which is not the only one and not always the main target, which, however, does not detract from its significance. It is widely known that risk is a payoff rate. This statement can be formulated differently: the corresponding return is the reward of the investor for taking the appropriate level of risk. Thus, it can be argued that risk management involves the search for optimal ratios in the “risk – return” plane (Gerasimovich, 2017).

The above makes financial engineering a leading mechanism for financial diagnostics at the current stage because financial engineering is the desire to reduce risk and develop new technology to get more profit. Therefore, risk reduction is either an intermediate goal or a tool for making more profit.

4. Financial engineering and innovative financial instruments – the potential for solving modern financial problems

The result of reducing the level of risk due to the diagnosis of the financial state of engineering methods is the most stable operational and financial activity of the company, which in the long run uniquely increases the income received. The above clearly reflects the purpose of financial engineering as a type of activity and indicates the innovative nature of this activity.

Separately, domestic scientists cite warnings about the use of engineering as a mechanism for diagnosing future threats to companies since financial instruments developed artificially, thanks to their design by financial engineering methods, have already become one of the significant factors that provoked the global financial and economic crisis of 2008-2009. Therefore, it should be remembered that financial engineering is not a panacea in this area, and ensuring financial security from threats associated with the proliferation of financial engineering products should be based on a system of preventive diagnostics of threats and risks of the latest financial instruments.

The following common approach to determining the conceptual foundations of financial engineering is focused on solving certain financial problems. It proceeds from the ambivalent understanding of financial engineering, the use of investment technology to solve financial problems, as well as the use of financial

instruments to transform the existing financial situation into another that has more preferable features. Such an interpretation of financial engineering focuses on its innovative nature. Solving financial problems and transforming the existing financial situation into another one, which is desirable, speaks of obtaining certain benefits from the implementation of this process. This is an extremely important feature that is rarely reflected in the analysis of financial engineering. It is the achievement of the situation with more desirable properties than the existing ones that, in our opinion, is the main goal of financial engineering. Otherwise, innovation itself loses its expediency.

Thus, the use of financial engineering has the potential to ensure the emergence and rapid development of

a number of financial instruments that have not yet been properly disseminated and used by enterprises in developing countries. For example, let us take the Ukrainian market of such derivative financial instruments as options, which are widely used in the global financial markets when carrying out investment operations, but still have a tiny share in the domestic stock market (Table 1).

During 2014-2018, the most valuable options' issue volumes on the Ukrainian stock market were observed in 2016 when they reached 198,900,000 UAH. However, even their share in the total volume of securities did not exceed 0.09%. The largest share of options is observed in January-October 2018 and accounts for 0.12%, although its level is primarily due to the rapid decline in the stock market of Ukraine as a whole. During the aforementioned period, only one issue of option certificates worth 55.0 million UAH was made, whereas the total issue of securities amounted to 448 billion UAH (Analytical data on stock market development, 2018). To exit the options market of Ukraine from a rudimentary state, along with an increase in the investment attractiveness of the economy and raising capital, sufficiently deep knowledge and skills in the use of derivative financial instruments are needed (Mashliy, Laba, 2016). Therefore, financial engineering as a mechanism for optimizing option contracts is of particular importance for the wide distribution of this financial instrument in the investment activities of domestic enterprises. From the position of financial engineering, enterprises should take into account the relationship of investment

Table 1

Dynamics of the volume of registered issues of options in Ukraine in 2014-2018

Indicators	2014	2015	2016	2017	January-October 2018
Options, million UAH	1,3	0,2	198,9	32,5	55,0
Issued option certificates, pieces	17	16	9	2	1
Total securities, billion UAH	217,3	155,8	221,2	353,7	44,8
Option share, %	0,0006	0,0001	0,0899	0,0092	0,1228

Source: compiled by the authors according to the National Securities and Stock Market Commission

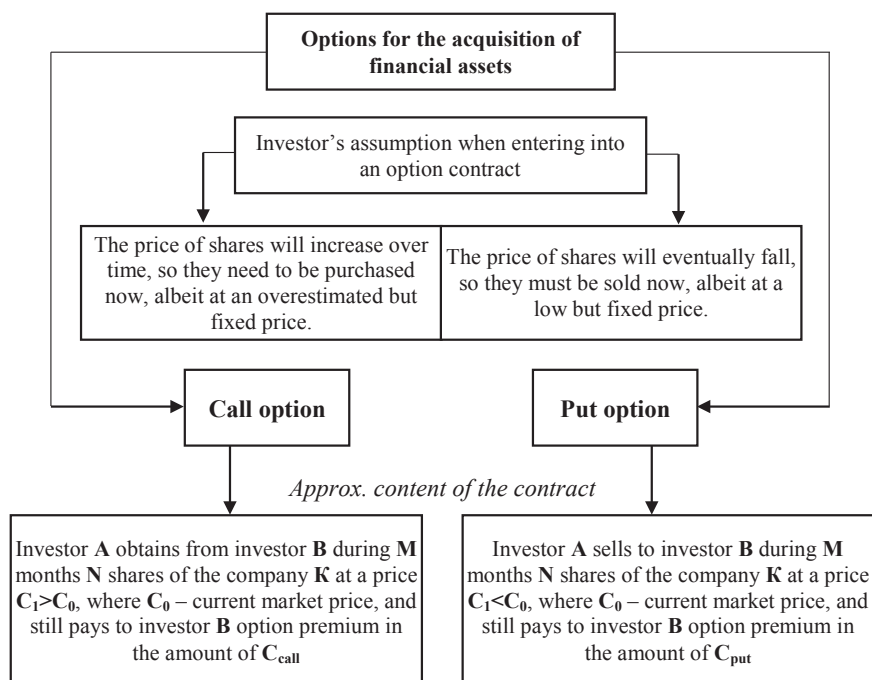


Figure. 1. Conceptual content of call and put options

Source: built by the authors

and the stages of the lifecycle of an enterprise since the actual formation of financial resources is possible at the stage of stability but, for the purpose of investment, is carried out at all stages of the enterprise lifecycle (Koval, Prymush, Popova, 2017). Consider the technology of financial transactions using options to buy and sell company shares. Figure 1 presents a conceptual model of put options and a call option.

Suppose that at the moment (the SQ situation, meaning "status quo"), shares of company *K* are being sold \$40 for each. Investor A wants to acquire 100 shares of company *K* since it assumes that shares will grow over time. However, potential investor A currently has not \$4,000 to buy these shares on the exchange, so he wants to offer investor B an agreement: agree to sell him 100 shares of company *K* for \$45 (which now cost only \$40), but in any time point within 3 months. In order to fulfil his intention, investor A needs to interest investor B, therefore, he suggests buying a call option from him and for this, he appoints the latter an option premium of \$2 per share, that is, \$200. Investor A can borrow this amount.

Investor B does not consider that the shares for the period indicated by investor A will rise in price above \$40, but there is a similar risk. Therefore, if investor B agrees to the risk of a reward of \$200 offered to him, then potential investor A will buy a contract with an option call at \$200, for which he is guaranteed to be able to purchase the 100 shares he needs from investor B for 3 months for \$4,500.

Let us consider the possible outcomes of a contract with a call option. For example, the shares of company *K* in three months began to be sold at a price of \$50 per share. This means direct losses in the price of \$500 for side B since the investor will have to buy 100 shares of company *K* in the market at the current price of \$50, paying \$5,000 for them, and sell them to investor A at the price of \$45. That is, he will receive from the investor only \$4,500 for them. However, shares may fall in price in three months and cost, for example, \$35 per share. In this case, investor A will have to execute the contract on unfavourable conditions and pay \$4,500 to investor B for purchasing 100 shares of company *K* from him (although he could pay for them only \$3,500 in the market). Thus, a contract with a call option costs money for investor A, that is, it has a price (in our case, \$200).

The price of the option depends on the level of uncertainty of the current situation in relation to the future. However, the significant impact on the size of the option premium has also how the participants of this risky agreement with the securities estimate the prospect themselves. Because of this feature of options, the importance of using financial engineering as a mechanism to ensure an optimal balance between risk and profitability increases. In particular, in order to mitigate the consequences of an option agreement, the parties often specifically make it possible to liquidate a contract before it expires or to freely resell its part of the contract to third parties.

5. Application of financial engineering using option contracts example

Let us consider in more detail the mechanism of financial engineering under the condition that when making the option, the parties have provided the opportunity to refuse contractual obligations in favour of the third parties. Let, for example, a month after the conclusion of a contract, the situation changed (we denote it as SQ1), the market price increased by \$10 and, as a result, amounted to $C1 = \$50$. If current information is refined, investor B can decide based on two possible alternatives. The first alternative is to buy out a contract from investor A at this price and close this contract. Suppose investor B offered, and investor A accepted the offer to close the contract, provided that he received from investor B at \$5 per share. If the parties agree, the results of such an operation will be: $Y_A = -200 + 500 = 300$; $Y_B = 200 - 500 = -300$. The second alternative to investor B is to transfer positions on the contract to a third party, paying it for taking on all the obligations. In this case, investor B acts as the "first" seller of the option, therefore in this alternative, it is more convenient to call him B1, and the third person as the "second" seller B2. Suppose that investor B2 agrees to repurchase the call option from investor B1 if he pays him \$5 per share, that is, \$500. In this case, the contract will be supplemented by the condition that investor B2 becomes the seller of the option, and the results of these financial operations will be: $Y_A = -200$; $Y_{B1} = 200 - 500 = -300$; $Y_{B2} = 500$.

However, investor A may also refuse to execute the contract with the option number over time. To do this, he needs to find the "second" potential buyer of shares A2, who wants for some fee, for example, \$6 per share, that is, for \$600, to buy a contract of "first" potential buyer, A1. In this case, the contract will be supplemented by the condition that the buyer of the option becomes investor A2, and the results of the financial transaction will be: $Y_{A1} = -200 + 600 = 400$; $Y_{A2} = -600$; $Y_{B1} = 200$.

Finally, each of the participants in the option contract can find a third person for himself. In this case, both "first" investors will be excluded from the contract, and their places will be "second". As a result, buying and selling options for them under the above-mentioned conditions of sale will lead to the following results $Y_{A2} = -600$; $Y_{B2} = 500$.

Table 2 presents the results of the application of financial engineering while implementing an option contract for different scenarios.

Summarizing the conceptual foundations and practical mechanisms for the application of financial engineering presented in the article using the example of option contracts, we note that financial engineering is largely a creative process of creating financial innovations in the form of financial products, processes, technologies, and institutions in order to obtain financial

Table 2

Impact of financial engineering on the results of the implementation of the option contract

Strategies of investors A and B	Continuation of the execution of the contract	Transfer of your positions on the contract to investor B2
Continuation of the execution of the contract	$Y_{A1} = -200;$ $Y_{B1} = 200$	$Y_{A1} = -200;$ $Y_{B1} = -300;$ $Y_{B2} = 500;$
Transfer of your positions on the contract to investor A2	$Y_{A1} = 400;$ $Y_{A2} = -600;$ $Y_{B1} = 200$	$Y_{A2} = -600;$ $Y_{B2} = 500$

Source: built by the authors

benefits from their practical use in the activities of the enterprise. A deeper understanding of the content of financial engineering requires an analysis of the causes of its appearance and development factors, which leads to the prospect of further research in this direction.

6. Conclusions

The result of financial engineering is financial innovation in the form of a new financial product, new technology or process, new financial institutions. Financial products should be understood as both financial instruments and services in the field of finance. The key task of financial engineering is to transform the existing financial enterprise situation into another, more desirable for it. In other words, its main goal is to obtain financial benefits, primarily due to the reduction of risk and the achievement of a certain level of enterprise profitability. In the process of financial engineering, there is a problem situation, data are being collected and processed, a program of relevant measures is being consistently put together and implemented.

The theoretical significance of financial engineering is realized through its allocation as an independent scientific and practical direction of research with its own purpose, target directions and methods of realization of financial decisions. An important stage in the application of financial engineering in the enterprise's activity is to determine the expected result of its application, which acquires forms of innovative products in the form of new organizational structures of financial management, system approaches to the calculation of indicators of the financial state of the enterprise etc.

An alternative approach to defining the conceptual foundations of financial engineering is to focus on solving certain financial problems. This approach proceeds from the ambivalent understanding of financial engineering, the use of investment technology to solve financial problems, as well as the use of financial instruments to transform the existing financial situation into another, a more favourable one. This is an extremely important property that is rarely reflected in the analysis of financial engineering because achieving a situation with more desirable properties than the existing ones is the main goal of financial engineering, without which any innovation activity loses its feasibility.

Analysis of the development of the domestic options market showed that financial engineering as a mechanism for optimizing option contracts is of particular importance for the wide distribution of this financial instrument in the investment activities of economic entities of Ukraine. The parties' use of option contracts of various financial engineering strategies makes it possible to optimize the risks of options transactions, ensuring the optimal ratio between the levels of their riskiness and profitability.

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STRATEGIC AIRLINE ALLIANCES AS A SPECIAL FORM OF COMPANY INTEGRATION

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Abstract. The *purpose* of the article is to analyse the world practice of organization and functioning of strategic alliances as one of the forms of integration of companies and consider the peculiarities of their functioning, including in aviation. Initially, their creation was aimed at achieving comparatively simple goals such as regional or global coordination of sales or distribution of innovations and new proprietary technologies in related industries. Economic motivation was to reduce the cost of global marketing or the spread of technology, as well as to increase sales through stable partnerships or cooperative ties. Subsequently, international strategic alliances have continued. The *methodology* of the research is the position on the theory of enterprise management, as well as the methods of differentiated and component analysis for the scientific definition of the term “strategic analysis.” It also describes the differences in strategic alliances from other organizational forms of company integration. The *results* prove that global competition is not the only reason for the creation of international strategic alliances. The market conditions and technological factors of development, which are derived from the determination and properties of alliances themselves, are determined, but at the same time, they have their own peculiarities, which are dictated by the state of economic life. The emergence of alliances was the result of increased global competition, and especially non-price. However, global competition is not the only reason for the creation of international strategic alliances. In addition, it is also useful to refer to market conditions and technological development factors that derive from the definition and properties of the alliances themselves, but at the same time, they have their own peculiarities that are dictated by the state of the economy. It is *practically* grounded that one of the motives for the creation and effective development of strategic alliances in the aviation sector is the possibility of improving the level of service. The main problems of creating alliances, regularities of successful functioning, and the main causes of the collapse of alliances are described. *Value/originality.* Based on the analysis of the problems that arise in the functioning of alliances, the authors proposed some ways to solve these problems and, accordingly, overcome the causes of the collapse of international strategic alliances.

Key words: strategic alliance, airline alliance, international strategic alliances, transport, management.

JEL Classification: A19, B41

1. Introduction

In world practice, different types of integration of firms have developed, which differ depending on the objectives of cooperation, the nature of economic relations between their participants, the degree of independence of enterprises incorporated in the association. These are strategic alliances, consortia, cartels, syndicates, bullets, associations, conglomerates, trusts, concerns, industrial holdings, financial and industrial groups, etc.

Organizational forms of corporate associations that differ significantly in terms of the degree of integration of their participants are historically developed from

concerns and family groups to strategic alliances, and so on. At the same time, the organizational forms that arise do not supplant the previous types of integration of companies but complement them. There is an expansion of forms. The nature of the interconnections, especially in aviation branch, between companies becomes more complex and rather subtle, given also the possibility of cooperation of integrated structures.

The purpose of this article is to analyse the world practice of organization including companies in aviation branch and operation of strategic alliances as one of the forms of company integration, analysis of their characteristics, features and differences from other

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forms of integration; the study of problems that arise in the functioning of alliances, the identification and coverage of the main causes of failure and the collapse of strategic airline alliances, as well as consideration of some ways to solve these problems and, accordingly, overcome the causes of the collapse.

2. Analysis of recent research and publications

Modern world integration processes, the forms in which they occur, in particular, strategic alliances, are the subject of research by many economists. Among them are such scholars as: (Bobina, Grachev, 2006), (Dagaev, 2001), (Karapukhina, 2004), (Yolles, 2005), and others. The boundaries between the forms of company integration are often blurred. Therefore, different specialists (both theoreticians and practitioners) are sometimes interpreted ambiguously. For example, there are two opinions about the relationship between strategic alliances and consortia (Baum, Rowley, Shipilov, 2004), (Novak, 2012). One of them is that the consortium is not a strategic alliance; however, it is often more of a prevailing point of view that consortia are among the types of strategic alliances.

However, due to the importance of the research, there is a need for further research development of the perspective of the future functioning of international strategic alliances in Ukraine.

The incompleteness of scientific developments in this area and the essential practical significance of this problem for Ukrainian enterprises in the conditions of globalization of the economy emphasize the objective nature of the relevance of the research topic.

3. Strategic alliance and forms of company integration

Creation of various international associations of companies at the present stage becomes an objective necessity and a habitual phenomenon. One of the many forms of manifestation of these processes is the creation of international strategic alliances. International strategic alliances are developing in many spheres of the world economy, first of all – in telecommunications, computer science, air transportation, services, etc. (Dagaev, 2001), (Harrigan, 2002), (Novak, 2009).

The Strategic Alliance, according to the authors, is such an organizational form of economic cooperation between two or more independent enterprises for achieving certain commercial goals, obtaining synergy from the combined and complementary strategic resources of companies, in which each of the parties concerned is interested in mutually beneficial cooperation and tries to implement it, moreover, acts as an equal partner and makes a concrete contribution to the achievement of the

overall result, while preserving its independence. From the creation of strategic alliances, the company receives significant competitive advantages, so the desire for such integration and its causes are quite understandable. Strategic alliances are the most promising form of company integration and one of the most important means of competition. Their creation is one of the fastest and cheapest ways to implement a global strategy.

Strategic alliances have certain features, namely generalized by (Bobina, 2006), (Dagaev, 2001), (Kyrylenko, 2011), (Yolles, 2005), (Novak, 2009):

- the alliance, as a rule, is not an independent legal entity;
- companies may be members of many strategic alliances;
- this form of economic association is based on the conclusion of medium-term or long-term, bilateral or multilateral agreements;
- strategic alliances are created on the basis of horizontal inter-firm cooperation, as well as between companies engaged in related fields of business and possess complementary technologies and experience;
- strategic alliances are flexible enough, free for partners, more focused on the future, reduce uncertainty in partner relationships, increase stability in resource provision and product and service distribution;
- alliances are created for a certain period of time, they collapse when the need for association disappears;
- in the strategic alliance, not only suppliers and customers can enter, but also competitors;
- alliances have an impact on competition: united companies focus more on joint ventures than one against each other;
- within strategic alliances, the joint coordination of strategic planning and management of participants is carried out, which allows them to coordinate their long-term partnerships with the benefit of each participant;
- this is an agreement on cooperation between firms that goes beyond ordinary commercial transactions but does not bring the case to the merger of companies.
- there are significant differences between strategic alliances based on long-term partner relationships and contract-based partnerships since the latter type of cooperation exists for a limited time and is used for specific projects or purposes. Conventional contractual relations, as a rule, do not foresee the development of relations in the future;
- to date, these are the least restrictive methods of penetration of the market by the legislation.

Strategic alliances are a relatively new formation in the global economy. Initially, their creation was aimed at achieving relatively simple goals such as regional or global sales coordination or the spread of innovations and new patented technologies in related industries. Economic motivation was to reduce the

cost of global marketing or the spread of technology, as well as increased sales through stable partnerships or cooperative ties. Subsequently, international strategic alliances became long-lasting. They are complex in nature because they are formed for the realization of strategic goals – creation and spread of new technologies and products, the cooperation of production, joint provision of services, etc.

Differences of strategic alliances from other organizational forms of integration of companies are presented in Figure 1, where their comparative characteristics are shown.

The emergence of alliances was the result of increased global competition, and especially non-price. However, global competition is not the only reason for the creation of international strategic alliances. In addition, it is also useful to refer to market conditions and technological and technological factors of development, which follow from the definition and properties of the alliances themselves, but at the same time, have their own characteristics, which are dictated by the state of economic life.

(Completed on the basis of (Litvinenko, 2014), (Bamford, Gomes-Casseres, Robinson, 2002), (Bleeke, Ernst, 2001))

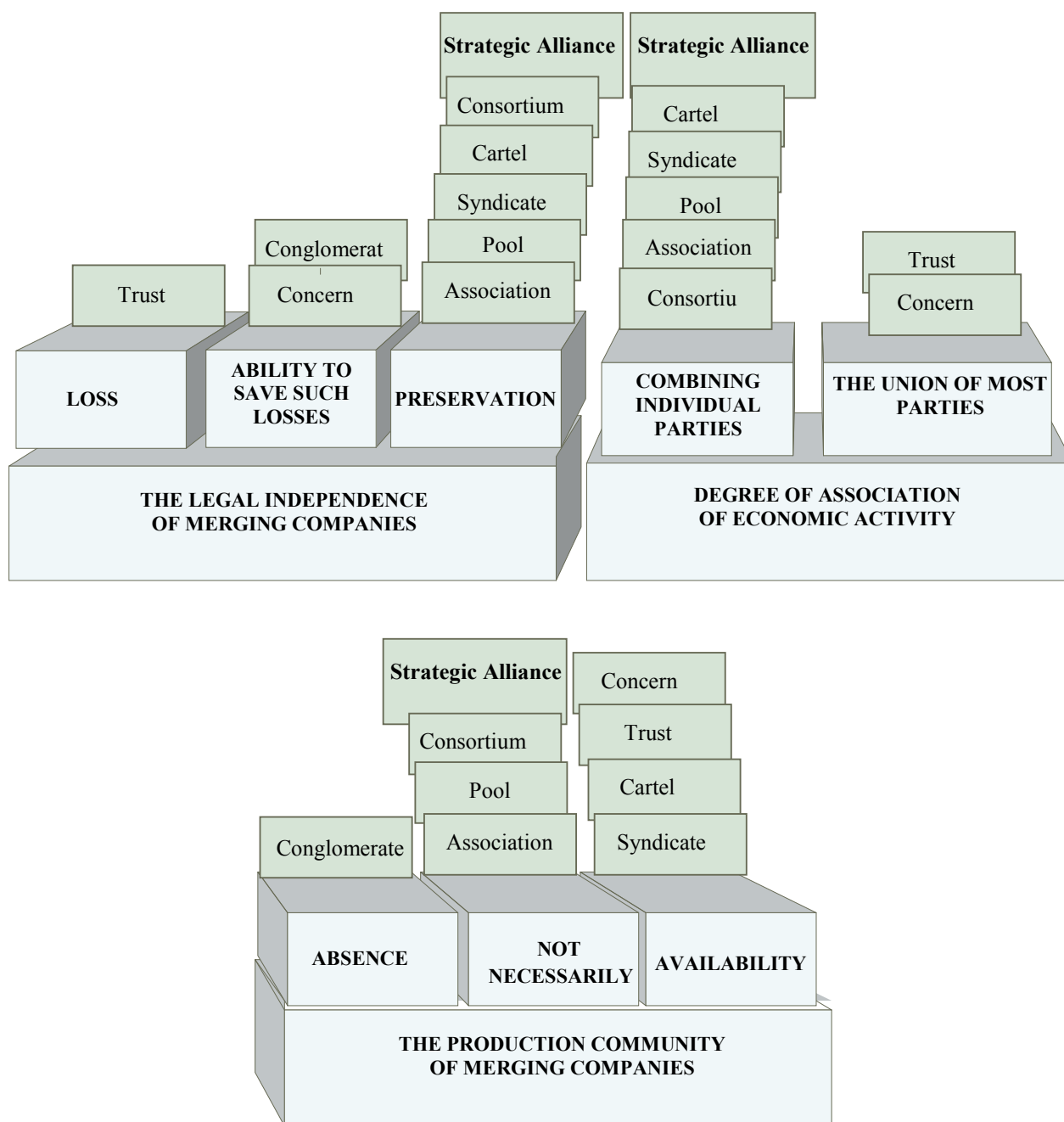


Figure 1. Common features and differences between the main organizational forms of company integration

These factors include the following:

- further globalization of markets, expansion of the spectrum of geopolitical tasks of development;
- technological universalization of economic activity of entrepreneurial structures;
- fluctuations in the ratio of the exchange rates of individual national currency units;
- objective needs for manoeuvre in investment policy;
- possibility to provide additional transaction savings, to save on expenses;
- an opportunity to increase the profitability of assets, which is provided by deepening of specialization and organizational and managerial optimization;
- further technological progress, which leads to inexpediency, and sometimes entrepreneurial impossibility to follow parallel courses of development of scientific and technological progress.

The goals for which the companies enter strategic alliances are significantly different.

However, the undeniable conditions for the effective functioning of the strategic alliance are long-term planning, policy coordination that strengthens the trust of partners and the desire for cooperation between higher and middle management of allied companies.

There are four types of strategic alliances:

- alliances with joint stock companies in existing enterprises;
- strategic alliances with the creation of new companies (joint ventures);
- consortia for the implementation of investment projects;
- alliances with weak cooperation (Dagaev, 2001).

However, it should be noted that strategic alliances are not devoid of risks, which often lead to failures and collapse of alliances. That is why it becomes necessary to identify not only the basic patterns of successful development but also the reasons for the collapse of international strategic alliances.

Creation and development of international strategic alliances are aimed at the use and creation of certain competitive advantages. Through the use of competitive advantages, the results of alliances are much more significant. As a rule, this is achieved through the possibility of manoeuvring productive resources and individual components of production potential, accelerated implementation of the achievements of NTPs, increasing the efficiency of all marketing activities and economies of scale.

It should be noted that in addition to competitive advantages, alliances are also based on the mutual coherence of the long-term strategic plans of the partners and the main objectives of their activities (for example, increase in the cost of productive efficiency, increase of innovations and knowledge, flexibility and scale of activity, preservation and strengthening of competitive advantages).

4. A strategic alliance in the aviation sector

One of the motives for the creation and effective development of strategic alliances in the aviation sector is the possibility of increasing the level of service, which is their significant competitive advantage. Of course, the service is provided by other companies. Therefore, strategic airline alliances make a joint purchase of aircraft, reducing the cost of leasing, since the aircraft are operated more.

Airlines that are a part of strategic airline alliances distribute operating costs, that is, the costs of corporations in terms of the number of places that the company has. Due to such alliances, the company gains new regions or distributes flights that are in less demand.

Airlines take part in regular consumer programs. Permanent consumers are individuals who regularly use the services of companies that are a part of the alliance. Airlines participation in consumer programs provides benefits to consumers as opportunities are available:

- simultaneous purchasing of tickets on a global scale and at low prices;
- the introduction of additional requirements for hotel services, car rentals, communications, etc.;
- replacement of tickets between airlines;
- the implementation of the most convenient flights on a global scale.

Thus, the strategic nature of global alliances is determined by the fact that their members are direct or indirect global competitors or partners in related fields of activity. The development of strategic alliances leads to the distribution of costs and profits, mutual ownership of shares.

An analysis of the global experience of the creation and operation of strategic alliances proves an interesting phenomenon: companies that are not a part of strategic alliances are significantly more likely to fail than the components of the system. Of course, strategic alliances are not completely stable, because firms are changing: some disappear, others appear. However, the position of alliances is much stronger than companies not incorporated into alliances.

Despite the rather high stability of alliances, their creation does not always give the expected effect and brings the desired result. Statistics show that about 60% of alliances collapse without overcoming the four-year threshold from the moment of their creation, and ten-year cooperation is rarer (Karapukhina, 2004), (Kyrylenko, 2011). The reasons may be different: insufficiently accurate calculations of the profitability of a joint project, different views on management and marketing, etc.

The study of strategic alliance activities revealed four main problems of creating alliances or four reasons for the collapse of alliances. Namely:

- inconsistency in the size of alliances to the needs and goals;

- insufficient quality of alliance members;
- internal competition in the alliance;
- problems of managing the alliance system (Novak, 2009).

An analysis of the activities of international alliances shows that for the division of risk or strengthening the position of the market the best possible number of partners.

However, if the main motive for creating a strategic alliance is technological cooperation, the quality factor of the partners becomes the determining factor.

It is also dangerous to take several companies at once to a strategic alliance. As the world practice shows, it is expedient to expand the alliance gradually. This is the best and most consistent mechanism for creating a trusted alliance.

That is why, in order to avoid failure, the creation of a strategic alliance should be aimed not at the size of the alliance as much as possible, but in the compliance of the alliance with the needs and objectives of the participating companies.

The leading factor in the success of alliances is the quality of its participants. The imperfection of this factor can lead to ineffective and inefficient functioning of the strategic alliance, and as a result – to the failure and collapse of the alliance.

Alliance partners should best complement each other's capabilities. For the most accurate identification of potential partners, the company must identify a list of its capabilities, as well as a list of its weaknesses, that is, what it lacks for its successful operation. Then you should follow the partners who will fill these weaknesses.

The result of well-chosen members of the alliance is the unification of several successful developments. One company, for example, offers technology, another – resources, the next – a design, one more provides its trading network, customer base, etc.

Internal competition in the alliance is a significant factor that can be broken by any international strategic alliance. But, provided the alliance is properly formed, it should not arise – the participants should complement each other, rather than compete.

For example, if one of the participants shares knowledge and experience with the alliance partners on the production process, market and sales, while others will only try to take this experience and use the knowledge gained for their own purposes, this will inevitably lead to the collapse of such a strategic alliance. Avoid the occurrence of such a problem due to a properly agreed and documented warranty contract.

Another problem may arise on the basis of coincidence of strategic intentions. This usually happens when a strategic alliance includes both small companies and powerful ones. Smaller companies can win significantly more from this alliance. After all, they are involved in the strategic planning, technology,

experience, and knowledge of large and smaller turnaround companies. And if they can translate all this much faster than powerful companies, then this will give them the opportunity to first capture new market segments.

Working on the same products, you can avoid such problems by focusing on different levels of product value creation. One firm member of a strategic alliance, for example, can conduct basic research, and the other one can engage in marketing activities and sales. Yes, they cannot exist without one.

The problem of managing the alliance system is quite serious. Management structure dictates the management process.

One of the management systems is used when there are many partners and nobody dominates. Its drawback is the slowness of today's market. If a strategic alliance includes many similar partners with similar interests, then they will be constantly and futilely competing.

The structure of the centre and the periphery, which includes one or more closely interconnected members of the nucleus and smaller partners that rotate around the centre, is more effective. The problem with such a management system can be only a significant increase in the network.

Another, equally effective management system can be based on the leadership of one company. This is the situation of the dominant company. For example, Boeing. Instead of three firms, one Boeing solves all disputes, takes responsibility and disciplines. In this case, the leader must necessarily be a large and authoritative company.

In order for the positive effect of the company's entry into a strategic alliance prevailing over the negative, in our opinion, it is necessary to take into account the following:

- strategic alliance partner must be compatible with this company;
- one should not expect an immediate return on the alliance, largely depending on the trust that exists between companies;
- a strategic alliance should be considered as a temporary agreement between partners, if it becomes disadvantageous, it is expedient to immediately break it.
- the most successful alliances are characterized by the fact that products and positions on the partner market complement the products and positions of the company, and do not compete with them;
- as a part of a strategic alliance, it is dangerous to pass on to the partner information that may appear in a competitive situation;
- when creating a strategic alliance, it is recommended that you quickly and comprehensively familiarize yourself with the main ideas and practices of a technology and management partner and introduce the most rational of this in your activity.

5. Conclusions

We consider it expedient to attribute strategic alliances to the so-called soft forms of company integration. These forms of integration are especially popular for international associations, as they allow for joint activities while maintaining the legal and economic independence of the participants. Within the framework of strategic alliances, the opportunity to mobilize the benefits of a strong corporate structure with the preservation of the national secrecy of its members. Indeed, sometimes the state power and public opinion of the countries for certain reasons, and above all, political, are not attentive to such forms of integration of companies, which lead to the loss of independence.

From the creation of international strategic alliances, the company gains significant competitive advantages, so the desire for such integration and its causes are quite understandable. According to the authors, the creation

and further development of strategic aviation alliances of the airline are pushed by various factors and motives. The most significant of these is that the company in this case receives a significant gain, which is the following:

- in raising the level of service in the implementation of air transportation;
- in the formation of a customer supply network, which stabilizes the demand for services;
- reduction of fixed and operating expenses;
- in achieving economies of scale – the distribution of fixed costs for another volume of sales;
- in creating new types of income;
- access to foreign markets with minimum costs without additional costs for equipment, purchase of a license for flights;
- in creating competitive advantages over other companies;
- in improving the safety of air transportation.

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MACROECONOMIC RISKS: CLASSIFIED FEATURES, METHODS OF MEASUREMENT, MITIGATION PATTERNS

Andrii Kovalchuk¹, Valentyna Dudchenko²

Abstract. *The purpose* of the article is to study the essence, factors, and ways for minimization of macroeconomic risks. *The subject* of the study is the macroeconomic risks. *Research methodology.* The research is based on the use of general scientific and special-scientific methods and techniques of scientific knowledge. The dialectical method was used for the determination of the basic causes of macroeconomic risks. The logic-semantic method was utilized for definition of the content of such concepts as “macroeconomic risk”, “collateral systems”, “oversight”. Methods of analysis and synthesis helped us to study individual mechanisms of macroeconomic risks for their prevention and minimization. The comparative legal method was used to compare doctrinal approaches to this issue. The same method was used during the study of the positive experience of European countries in relation to this issue. The system-structural method was utilized during the analysis of the most common macroeconomic models to minimize macroeconomic risks. With the help of the legal modelling method, some proposals for the prevention and minimization of macroeconomic risks were developed. *Practical implication.* The study of the essence of macroeconomic risks, as well as an analysis of the principles and methods of their evaluation, helped to formulate conclusions on prevention and minimization of macroeconomic risks in accordance with the requirements of the new time. *Correlation/originality.* The most important tools for preventing macroeconomic risks are considered. It was proved that the strategic factor in reducing the negative effects of macroeconomic risks is the “new economy” or “economy of knowledge”. The principle of civilized regulation of systemic risks is formulated. The most characteristic factors that provoke macroeconomic risks in the sphere of money laundering were identified.

Key words: systemic risks, macroeconomic risks, risk monitoring, VAR-model.

JEL Classification: G32, E44

1. Introduction

Rising increment, ambiguity, and uncertainty around phenomena and totality of non-linear, unbalanced processes in economic, entrepreneurial and business activities are more and more inherent for fundamental economic transformations when risky situations become their intrinsic feature. Frequency and gravity of macro-risks effects on the global economic stability have ramped up dramatically whereas capabilities of existing systems for their mitigation and management, which would adequately and efficiently counteract potential adverse effects and threats, have shrunk markedly.

Though physical time flows as many thousand years ago economic timing differs in its entirety; macroeconomic time runs faster increasingly than one hundred or ten years ago. Therefore, content correctness requires the most extended analysis of systemic risks not only from the perspective of geographical and historical aspects but also in the context of modern economic processes. It is clear that risks of natural anomalies could

cause (and have already caused) thumping damages to the economy. The above evidence explains why it is important to respond timely to potential and existing risks inherent for economic development of every country and especially Ukraine.

Macroeconomic risk is a rather complex and multi-dimensional phenomenon that in turn determines the expediency of its analysis from various perspectives and hence the possibility of the existence of many definitions in sense of categories. Double aspect of macroeconomic phenomena, i.e. competition and monopoly, innovation and conservatism, entrepreneurship and routinism, professionalism and incompetence, greed for financial (and not only) gain with ignoring moral and ethical principles, leaves its stamp on the essence and occurrence of macroeconomic risks.

In this scientific work, we will examine the nature, factors, and ways of minimizing macroeconomic risks, classify systemic risks, analyse the principles and methods for assessing macroeconomic risks.

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2. Statement of the baseline

Special researches demonstrated that macro-risks themselves ranked fifth in the list of ten visualized uncertainties accompanying social being (Bazilevich, Ilin, 2010). Herewith macroeconomic risks (their nature, essential features, factors of origin, volatility and permanency of demonstrations) remain the less explored. This obviousness also necessitates substantial intensification of scientific impact on the processes of exploration and analysis of macroeconomic risks.

Therefore, the subject matter of our analysis is not segment-specific (currency, price, banking, deposit, credit, exchange, portfolio, index, tax etc.) risks, but rather macroeconomic risks realizing in the economic policy and derivatively appearing in various segments.

For this reason, an integrated approach makes it possible to understand the nature, content, and potential effects of macroeconomic risks. It is fair to say that each macroeconomic risk is systemic in terms of its essence and scope of influence, however not in every instance systemic risk is purely economic in its nature. Several macro-risks come under influence of endogenous factors (instability of legal and regularity support, volatile shifts in existing levels of competitiveness, permanent demand fluctuations etc.).

Conceptually inconsistent and erroneous economic theories contributing to mistakes of the institutional policy nationwide are one of the core reasons for macroeconomic risks of systemic nature. For example, neoliberalism as a cult pillar of the economic policy and market orthodox ideology of past decades generated on permanent basis macroeconomic risks not only in the most important areas and segments of national economies but in global terms as well. Underestimation of the importance of unbiased and systemic interpretation of macroeconomic risks in researches (in such context, it is not about journalism and newspaper publications) triggers situations when actual dependencies and relations are out of sight. Thus, it is current practice to use by inertia "quotations-nomads", the true meaning of which is long forgotten or distorted. At the same time, the picture of pressing developments and processes is beclouded giving rise to threats of actual but not fancied risks. Within the framework of fuzzy definition of risks and their potential types the possibility of their mitigation, much less before-the-fact prevention, becomes increasingly conditional.

If evolutionary transformations in the economy could be assessed in whole as positive, then rather endangering changes occur in ecosystem and natural environment. Aggressive rich soil erosion, deforestation, large-scale depopulation of territories, pollution of rivers and lakes with the freshwater becoming of absolute scarcity etc. appeared as an undesirable effect of human management and being on the Earth. Nowadays such human activities predominate when ecological and technology-related risks correspond directly with economic ones

making frequently their valuable details. Therefore, state regulation of ecological and economic development is of high relevance today (Biloskurskiy, 2017).

We determine macroeconomic risk as a complex category reflecting such essential features as increment, volatility, conflict, multicriteriality, fuzziness, and uncertainty in economic relations. At the same time, existing macroeconomic relations often exclude adequate response of authorized administrative bodies and business entities concerned in order to make an optimum choice from the number of alternative risk-related options to obtain the most probabilistically desired ultimate result. Intended probabilistic economic result is achieved (as it should be), on the one part, through timely prevention or mitigation of possible detrimental effects on macroeconomic situation, but, on the other part, provides for implementation in the national economy, first of all, effective management, i.e. flexible organizational and management activities.

Transformation of scientific views and theoretical generalization on macroeconomic risks demonstrates bipolar views and positions. On the one part, we have a scientific approach, which theoretical founders represent that the whole system of economic being is the result of intelligent design (Reinert, 2011; Charles W. Calomiris, Stephen H. Haber, 2017; Sargent, 2008). Such a position is observed in theoretical principles and trends of creationism asserting that extended tail of events and phenomena may be explained and should be perceived as the result of existing intelligent preconditions. Meanwhile, authors of the given theory acknowledge that economic future and, first of all, processes of macroeconomic development should be generated and regulated proactively (Sargent, 2008). It is worth mentioning that one of the authors of the given theory Thomas J. Sargent obtained Nobel Prize in Economics in 2011.

It is quite enough to know and understand that macroeconomic systems are filled to the brim with systemic risks. At the same time, it is of high relevance to be equipped with top-quality theory, i.e. to know why one or another pain points (risks) appear and which methods may be used to mitigate their adverse effects (Kovalchuk, Kovalchuk, 2012). It is the analysis, assessment of outcomes and challenges of macroeconomic development and related risks, which are in the special focus of highly respected public actors (Gaidutskyi, 2017).

For many decades, scientific analysis of macroeconomic risks, especially mechanisms and methods of their prevention and mitigation, has drawn upon extremely formalized fundamentals. A mathematical formalization of macroeconomic developments and processes provoking ultimately perceptible (negative in their nature) external effects became one of such movements. However, as time passed, it became more apparent that mathematical econometric theory does not result in detection of universal macroeconomic behaviour.

To the contrary, suggested economic and mathematical schemes frequently and successfully draw a veil over their essential amorphous state and predictable dysfunctionality. The regular occurrence of crisis phenomena is not provided for in any mathematical models of “general equilibrium” and this challenges necessity of their further specification.

The macroeconomic world is in turbulent condition and attempts to set up mathematical doctrines of its equilibrium are doomed to fail. The dynamism of social structure, financial markets, technology-related transformations prove that macroeconomic development is of non-linear nature, i.e. has much of uncertainty and expressed unbalance. At the same time, the main driving component of macroeconomy – “capital of spirit and will”, i.e. human activities, more and more requires intergovernmental (global) influence.

It turned out that liberalism, as a foreign benchmark for the institutional policy does not correlate to the Ukrainian economic reality by any means. The neoliberal economic theory did not withstand the test of time and practice since the implementation of its recommendations does not make conditions for sustainable economic development on global terms. If theory turns into doctrine, doctrine – into dogma, and dogma – into inadequate economic policy then it is macroeconomic practice, which pays the price. It appeared that market fundamentalism definitely provokes systemic risks demonstrating two phenomena in parallel, i.e. unregulated and, therefore, sizeable inflation of administrative and regulatory decisions and persistent slowdown of macroeconomic indicators.

However, large-scale crisis evidence did not become an actual warning for the Ukrainian authorities. Not least because of this fact, Ukraine enjoys “the image” of the state locating in the centre of Europe only territorially, but not in terms of criteria of economic development, purity of financial and credit relations, legal culture etc. This macroeconomic situation is just explicit demonstration of consequences of direct disregard of systemic risks (not least because of being brought from outside) interlaced into the Ukrainian state policy. Causal contradictions between “grand theory” and practice of economic being are one of the factors of existing macroeconomic risks. Therefore, we may say about the two-in-one reason for existing macroeconomic risks, on the one part, wrong theoretical basis and orthodoxy of institutional policy pressed from outside, on the other part.

In order to obtain desired funding from foreign organizations, canonical macroeconomists representing interests of IMF and the World Bank justify theoretically abstract models not associated with nuts-and-bolts realities overfilled with systemic risks. According to the Nobel Memorial Prize winner Mr. Joseph Stiglitz who used to hold the position of the First Vice-President of the International Bank

for Reconstruction and Development (1997-2000), “our attention is drawn away from real-life problems and we move towards wrong decisions” (Stiglitz, 2002; Kovalchuk, Kovalchuk, 2012). The scientist pointed out to disregarding in recommendations of representatives of the Washington Consensus of “systemic risks that to the great extent determined the transformation of young states to the *Wild World* with non-controlled markets, dramatic GDP downturn and impoverishment of population” (Stiglitz, 2014). The danger is also that wrong theoretical postulates underlying for current economic policy and taken for steadfast implementation in the form of laws and regulations carry the potential systemic risks.

It is essential to realize that the key principle of civilizational regulation of systemic risks (prevention or mitigation of potential adverse effects) provides for that each economic system would strive to establish regulating constants, rules, and prohibitions of such nature and in such direction to have business or entrepreneurial activities performed in the long run in the way that would give rise to and cause no detrimental impacts both locally and nationwide and internationally. However, unfortunately, the given important postulate is not always considered (Charles, Stephen, 2017).

While mitigating macroeconomic risks, collateral systems become more and more meaningful that represent themselves rules and procedure for selection, evaluation and monitoring, movement, and usage of all-kind assets in order to mitigate macroeconomic risks. Implementation of the collateral system corresponds to the international standards and the world best practices because its formula is adopted to the great extent from foreign legal systems; by this very process of increasing efficiency of the infrastructure of the corresponding segment at the financial market is inspired.

The complexity of analysis of potential gains or threats associated with the timely and qualitative level of measuring and evaluating macroeconomic risks is explained largely by the fact that the risks cover the number of principal structural elements in key areas and segments of the national economy, as well as banking system, securities market, stock market etc. These are exactly stock markets, which demonstrate the most visible volatility, i.e. the broad magnitude of variations of asset value, and hence the existence of the so-called *portfolio* risks.

Nobel Memorial Prize winner Mr. William F. Sharpe made a stand for the model of portfolio risks based on an evaluation of capital assets, which was criticized by practicing men. “Some practicing men argue that CAPM (Capital Asset Pricing Model) disannulled efficient-market hypothesis. CAPM is not the curiosity of theoretical studies with doubtful empirical confirmation. It became the component of complex strategies for institutional portfolio management” (Vydatni finansysty ta suchasna praktyka, 2011).

Mitigation of macroeconomic risks is provided to the great extent through the implementation of macroeconomic models. *Value-at-Risk* (VaR) model has been the most widely accepted methodology for market risks evaluation. VaR may be perceived literally as “risk value” or “risk measure”. VaR estimation model is used as the basis for reserve capital calculation. For this model, requirements to the volume and size of the reserve capital (V) were calculated as the maximum of two values: a) present value VaR (VAR_t); b) average VaR for previous two months (60 days) multiplied by coefficient with the value from 3 to 4. Base formula for such calculations is as follows:

$$V = \lambda * \max \left\{ VAR_t, 1 / 60 \sum_{i=1}^{60} VAR_{t-i} \right\}, \quad 3 \leq \lambda \leq 4$$

Herewith the value of λ factor depends on the accuracy of daily forecasting of the model for the previous periods.

With the help of VaR-based modelling, it becomes possible to forecast and evaluate risks at least in 4 directions: *first*, “internal monitoring of market risks” may be carried out in several measurements: in terms of issuer’s reliability, class of financial assets, adequacy of aggregate portfolio and financial capacities of a contracting party etc.; *secondly*, VaR system enables “external monitoring” when a general investor may receive a forecast on quality of portfolio assets of external investors and thus estimate investment risk measure; *thirdly*, VaR may be used for measurement of hedging efficiency, i.e. determine how activity of particular hedge-fund achieves strategic goal – actually insures against financial risks; *fourthly*, with the help of VaR-modelling monitoring of expediency of respective agreements on potential transactions is carried out.

Duly modelled macroeconomic risk should be implemented in a corresponding economic strategy, which incorporated smoothly into the state economic policy that in such a manner creates objective necessity to identify, analyse, measure, and manage risk in activities of business entities (in particular, determination of required and sufficient conditions for care and restraint in relation to economic risk) and hence create favourable environment for mitigation of adverse effects both of local and macroeconomic nature.

Collateral systems act as a critical tool of mitigation of macroeconomic risks. Collateral systems represent themselves rules and procedure for selection, evaluation and monitoring, movement, and usage of all-kind assets in order to mitigate macroeconomic risks. Understanding of collateral system correlates to the international standards and the world best practices because its formula is adopted to the great extent from foreign anti-risk practice. Experience has proven that various options of designing collateral systems are initiated and implemented most of all by Central Banks (Chailloux, Gray, McCaughrin).

It is worth mentioning about those financial risks arisen while generation and placement of exchange reserves of our state. The huge risk is that the National Bank of Ukraine holds exchange reserves not in Ukraine but place them in paper format within the USA. This model is the most efficient for financial beneficiaries, which put borrowed reserves into circulation for their own benefit. Assuming Randy factor (taken as the basis for calculation of the volume of accepted exchange reserves) half as large exchange reserves than we have today would be sufficient for Ukraine. All attempts to criticize soundly and scientifically explicitly risky and misguided NBU policies on placement and usage of exchange reserves meet with their persistent neglect (SOS – v Ukraini neokolonialna model valyutnoyi polityky). Macroeconomic risk of losing by dollar its exclusive role of global equivalent (world currency) in the international arena becomes absolute. Proactive development of cryptocurrency market turns to be its precursor.

At the same time, the idea of innovative modernization embedded into specific strategy could serve an alternative to seemingly desperate Ukraine’s lagging behind in the world races for civilizational priorities. The state of Ukraine and the national economy possess all prerequisites for the successful launch of the *forward-thinking* model, i.e. concentration of public potential, available economic and social resources in priority directions of high-technology development. Just embodying in practical terms the idea of random creation of innovative segments (*islands-technopolises*) of advanced development, we can build up the strategy of the national economy’s development, which would gain fundamental and qualitative differences as compared to the existing one.

Such a financial tool as oversight may be sizeable in mitigating economic risks since it expresses the entirety of relations arising in relation to macroeconomic operational capabilities of payment and settlement systems serving the national economy and the block of international economic relations specified by the state. Exercise of oversight is of paramount importance for the national economy because three interrelated macroeconomic sectors have already been formulated and developed nationwide: a) budget area which subjects and at the same time objects of payments and settlements are state authorities and institutions; b) corporate and so-called *municipal area* where subjects of payment and settlement relations and authorities of local self-government, municipal enterprises etc. play the role of subjects and participants of payments and settlements; c) households and all solvent population of the country which in some way or another are involved by the system of payments and settlements.

While mitigating macroeconomic risks, collateral systems become more and more meaningful. These systems represent themselves rules and procedure

for selection, evaluation and monitoring, movement, and usage of all-kind assets in order to mitigate macroeconomic risks. Since the implementation of the collateral system corresponds to the international standards and the world best practices because its formula is adopted to the great extent from foreign legal systems, by this the level of credibility to corresponding financial and crediting tools is increased and the very process of efficiency upturn of infrastructure of the national market is inspired.

Our scientific analysis confirmed the opinion of individual political leaders, who stand the ground of fundamental changes in the basic paradigm of the strategic development of the national economy. To start with, it relates to the so-called catching-up modernization, which in fact has nothing to do with civilizational prospects. For this model out-of-date, over costly and environmentally unfriendly technologies prevail. Under such circumstances, there exists a chronic and steady trend to lagging behind general civilizational standards. The policy of so-called *catching-up modernization* should be replaced with the strategy of *advanced development*. The risk of implementing this very strategy is that state regulatory agencies do not provide for, neither single out first and utmost in the economic strategy the directions of innovative development containing *blast effects*. This concerns those industries and productions, which may generate innovative blasts for the whole national economy. For this purpose, it is necessary to introduce the practice of concentration of financial resources and organizational and management efforts exactly on innovative growth zones.

Major economic risks are produced in the area of shadowing and money laundering (Kovalchuk, 2017). The most representative factors, which give rise to macroeconomic risks in the area of illegally-yearned income laundering are as follows: *first*, over-shadowing of economic relations in business and entrepreneurship sectors; *secondly*, spread of corruption and bribe-taking in the system of state, executive, law-enforcement and judicial authorities; *thirdly*, inadequate activities of subjects of primary and state financial monitoring according to international standards for financial activity regulation; *fourthly*, low transparency of activities of regulatory and supervisory authorities. In addition to this, the accumulation of macroeconomic risks boosting the processes of illegally-yearned income laundering is more and more explained by usage of the latest information and communications technologies and Internet-networks (Bill Gates, 2000).

It is high time starting prompt implementation of *NBIC-convergence* model, i.e. co-evolution of nano-, bio-, info- and cognitive theories. However, the complexity is that a new generation of innovative technologies conveys a huge charge of various and

practically unexplored risks, which prevention and mitigation require monumental financial expenditures. The first decades of XXI increasingly generate understanding that it is unpromising to stay in the routine inertia mode, i.e. while enjoying industrial epic of XX-century technological development undertake languid attempts to catch those who move away rapidly from the era passed and for the sake of advanced development make efforts focused on the latest and innovative achievements. Today, the common standard of *reforms* should be replaced with the concept of *systemic rehabilitation and innovative development* with bringing under it in parallel the essence and contents of the state economic policy. It is not a coincidence that systemic modernization is nowadays the most acceptable strategic aspect, which actually disowns the discredited notion of *reforms*. Innovative modernization should not be limited to technological borrowings but should be oriented on revolutionary institutional changes.

Radically new phenomenon emerging globally and called the *knowledge-based economy* is a strategical factor of declining detrimental effects of macroeconomic risks. Origin and formation of a *new economy*, in addition to other advantages, ramp up possibilities of positive impacts of systemic risks on appropriate segments and areas of production relations. The notion of *new economy* or *economy of knowledge* shall encompass key trends of changes in production, information and communications supplements to organizational and management systems, intensive generation of multiservice networks and spread of Internet-networks. The sensible increase of knowledge-intensive, high-technological companies able to produce risk projects, as well as methods of mitigating adverse effects, are features of a new economy. A new economy encapsulates three mutually intersecting areas – particularly education, science, and innovative technologies. Transformation of knowledge, information, ideas, symbolic images into dominant property item does not simply adjust, but change radically the state of affairs, i.e. these property components may be reproduced endlessly; they may be used in the most remote areas simultaneously. These factors, instead of materialized property (as today), become determining a feature of a new status of the real economy. And owing the possibility to mitigate adverse signs of macroeconomic risks is intensified.

In conclusion, we may lay down an essential principle of civilizational regulation of systemic risks when each state, specifically the international community, should set up (subject to all complexities of practical implementation) regulating constants, rules, and bans of such contents and in such a direction so to have business or entrepreneurial activities carried out ultimately in the risk-related mode, which would cause no detrimental effect on the economy as a whole.

3. Conclusion

In the context of formation within the territory of Ukraine of a *new economy* and approval of the practice of timely prevention and mitigation of macroeconomic risks in accordance with the imperative of modern time, it is necessary to: 1) give real state priority to the most advanced educational technologies. While providing maximum broad and equal access of youth to education, we should have the program for search and practical support of *national intelligence phenomena* in place; 2) create conditions for rehabilitation and advanced development of innovative directions of applied and, first and utmost, polytechnic sciences. It is the task of the state to ensure their financial support and direct employment at enterprises. All-around support of the introduction of high-yield venture developments into

the production; 3) secure efficient state protection of intellectual property, create legislatively the conditions for commercial usage of innovative achievements within the country; 4) encourage with maximum efficiency return of high-level engineers and blue-collar workers to the technological area. Breathe new life into the system of professional and technical schools where information and programming professions prevail and which graduates would be engaged with priority into operations in unique productions; 5) create modern information market, all-around support of the introduction of a unified information field.

Learning and striving to satisfy human needs without placing systemic risks on future generation being on the Earth should become the core principle of civilizational development.

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THE IMPACT OF GLOBAL CHALLENGES ON “GREEN” TRANSFORMATIONS OF THE AGRARIAN SECTOR OF THE EASTERN PARTNERSHIP COUNTRIES

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Abstract. The restructuring of the economy of countries of the Eastern Partnership with the EU requires new ways of implementation, which are based on the principles of ecologization, with due consideration of integrated indicators of strategic environmental assessment and balanced resource-efficient, environmentally-friendly production. *Subject-matter:* theoretical and practical principles of “green transformations” as a modern direction of the world economy, based on the harmonious use of innovative technologies and the natural environment. *Purpose.* The main purpose of the publication is to assess how the “green” growth strategy is implemented in the development of the agrarian sector, the demonstration of the importance and efficiency of green growth indicators and their practical application. The realization of the purpose led to solving the research tasks: to substantiate the necessity of forming a change in the agrarian paradigm in the countries of Eastern Europe, to analyse trends of the introduction of green growth, to prove the importance of the efficiency of using the green growth indicators. *Methodology.* The basis of the research methodology is the dialectical method, which involves the connection theory and practice, the principles of knowledge of the real world, the determinancy of phenomena and interaction processes of external and internal. In order to achieve the purpose and solve the tasks, the following methods were used: system-structural – in the study of the sustainable development of the agrarian sector; abstract-logical – when forming, generalizing, and analysing tendencies of adaptation of the Eastern Partnership countries to the Green Growth Concept; comparative – for comparing the factual data with the theoretical ones and characteristics of changes in time of indicators. As well as the methods of description and comparison were used to determine the vectors for the introduction of green growth in the countries of the Eastern Partnership. *Results.* New challenges for the world economy make it necessary to modernize the economy solely for ensuring sustainable development through green growth. According to the results of the analysis, the essence of “green” transformations of the agrarian sector was established, which proves the regularity of the inclusion of the ecological factor in the system of basic socio-economic indicators of the development of Eastern European countries. At the same time, on the basis of the generalization of the theoretical provisions, it was found that green growth stimulates competitive, innovative, investment activities, which can lead to new sources of economic growth. For the qualitative expression of the indicators of green growth, the dynamics of GDP of the countries of the Eastern Partnership with the EU and indicators of rational use of natural resources were analysed and summarized. *Conclusions.* Given the above, the necessity to use indicators of green growth in statistical information is proved, which allows reducing risks of economic growth; reducing the risk of conflicts caused by lack of resources; balancing the ecological imbalance of rural areas. The practical significance of the results obtained is the possibility of their use in the formation of statistical information, and the indicator of the efficiency of agricultural land use makes it possible to trace environmental and resource productivity, multi-factor productivity, dynamics of land use, life expectancy. The research results can be used as an analytical and informational basis for further scientific developments in the field of research on the impact of green transformations on the sustainable development of the agrarian sector.

Key words: natural capital, environmentally-friendly growth, green growth indicators, green growth strategies, sustainable agriculture, green growth monitoring.

JEL Classification: F43, O13, Q29

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1. Introduction

The transformational processes of the agrarian sector are characterized by significant changes, which meant the change of the agrarian paradigm and the formation of a new agroecological policy. The result of this theory is recognition of a market model for the development of the agrarian sector, its competitiveness, and the recognition of the industry as the most sensitive structural element of the economy, which instantly responds to fluctuations of external factors.

Modern models of the development of the world economy cannot take into account the results of complex causal relationships between economic assets and natural capital while ensuring their effective use and reproduction. Along with that, modern business models are putting society at high risk of growth inhibition. The emergence of risks increases with the wasteful use of natural capital, which results in the destruction of a whole sector of economically important agroecosystem infrastructure. The limitation or apathy of the implementation of measures aimed at preserving this capital will inevitably lead to an increase in the cost of its replacement (Kurinets, Kharichkov, 2007). The transition to environmentally-friendly growth increases the economic benefits and revenues from the use of natural capital. At the same time, current revenues from this capital should be used with considerable caution so that their use encourages the growth of other forms of capital (primarily human and productive ones) (Ecologization of the economy in the EU Eastern Neighbourhood countries).

In fact, this proves that the determining factor in the transformational processes of the world economy is the introduction of the principles of a green economy and green growth (Kvasha, 2015). Even given all the importance of economic growth, its ultimate goal is to ensure the improvement of the living conditions of every person today and in the future. An objective need keeps up to date to study the impact of green transformations on the development of the agricultural sector of the countries of the Eastern Partnership with the EU.

The scientific novelty consists in substantiation of the expediency of application of green growth indicators at the formation of the statistical information, in particular, the indicator of agricultural land use efficiency, which allows tracing ecological and resource productivity, is proposed.

The analysis of existing issues on green growth problems is the subject of numerous scientific studies; however, the issue of green growth in agricultural development is not sufficiently highlighted. It is worth looking at the study of this problem by the following scholars: Bukrynskyi B. V., Halushkina T. P., Heiets V. M., Kvasha T. K., Kurinets L. Ye., Musina L. A., Zegar J. S. and others.

2. External factors of influence on green growth

The decisive problem of economic growth is increasingly dependent on the formation of international decisions in the field of ecology, on the conditions of integration of countries into the international economic space, and the reaction of national economies to integration processes. The integration processes contribute to the manifestations of the national specificity, stimulate its development, determine the place of the country in the international division of labour, the level of competitiveness of products, and providing opportunities for meeting the needs of society. In its turn, interdependent links between countries are formed, which creates a significant sectoral impact on the structure of production within the country, taking into account its specificity.

According to scientists-economists, in order to achieve sustainable development goals, in the transformational conditions of the world economy, a new approach must be applied that takes into account compromises and synergistic interaction between sectors and components of sustainability (Ecologization of the economy in the EU Eastern Neighbourhood countries).

That is why, in order to determine the influence of external factors on the formation of the Green Growth Strategies of the Eastern Partnership countries, we use a PESTEL analysis. With the help of which we will identify the political, economic, social, technological, legal, and environmental factors that underlie the formation of the Green Growth Strategies of the Eastern Partnership countries (Table 1).

Note that the positions discussed in the table characterize the structure of the economy of Eastern European countries, which is distinguished by asymmetric development towards the branches of agriculture, which is most sensitive to external factors. Eastern European countries have favourable natural conditions for the functioning of natural capital, as a rule, they export raw materials and agricultural products. The raw material export-oriented direction is marked by low value-added, which is an indisputable fact of the need to find new ways to generate income other than the export of raw materials. Taking into account the experience of OECD member countries, modernizing the economy, the main vector of which is green growth, has a positive effect of growth as evidenced by improved welfare in the countries (Ecologization of the economy in the EU Eastern Neighbourhood countries).

The green growth policy in Eastern European countries is closely linked to the actual development goals of the countries' economies, in particular, the diversification of the economy, the increase of production efficiency, which affects competitiveness in international markets. In addition, environmentalization affects the export potential of the country and the creation of new jobs.

Table 1

PESTEL analysis of the influence of external factors on the formation of the Green Growth Strategies of the Eastern Partnership countries

Political	P	Economic	E
Integration changes in country policies; Accession to the WTO has not created the desired favourable conditions for economic growth; Fixing the international image of countries that adopt the rules and principles of international trade; Eastern European countries are considered key components of geostrategy of Western Europe; Lack of sufficient experience in the development of the economy, which is not ready for a liberal and cruel regulation of the conditions of world trade.		The sharp decline in commodity prices in countries of Western Europe; Countries have adopted WTO strict tariffs for agricultural products; No transition to a post-industrial development model has been made; Replacement of protectionist measures by subsidizing, which may lead to deformations in the agrarian sector; The slowdown in the rate of foreign direct investment; With higher taxation, the emergence of the shadow sector and, as a consequence, the growing prices for production; Reduced competitiveness of processing agricultural enterprises.	
Social	S	Technological	T
Integration into world markets, preserving national interests; Low living standards in the post-industrial period; The necessity of training of skilled personnel, in combination with pilot projects of SEA; Harmonization of production and trading activities with the opportunities of the environment in the public interest.		High degree of depreciation of fixed capital assets, the need to accelerate their upgrade; Structural crises in the production process; High level of monopolization of production of similar goods; The transition of countries to the international standards system; The emergence of new business opportunities that eliminate the problem of technological "deadlock."	
Legal	L	Environmental	E
Agenda 21, 1992, Rio de Janeiro; The decision of the World Summit on Sustainable Development in Johannesburg (South Africa), 2002; The decision of the UN Conference on Sustainable Development "Rio+20" 2012, Rio de Janeiro; Organic 3.0; Consideration of controversial issues based on the operating principles of the functioning of the international trading system; Establishment of the institutional environment necessary to achieve the goals of green growth.		Implementation of the EaP GREEN project; Implementation of the OECD provisions for measuring green growth; Process monitoring and evaluation with regard to green growth; Requirements for increasing carbon and energy efficiency; Increasing the efficiency of using materials while simultaneously saving natural assets and improving the living standards; Ecologization of small and medium business.	

3. Sustainable development of agriculture

Recently, FAO has developed elements of a common scheme and an approach that allows a more efficient and comprehensive solution to the problems of sustainable agricultural development. This approach helps to support the efforts already undertaken in the field of agricultural development, which has led to a significant increase in productivity, making possible the provision of food for the ever-growing population of the planet, with a relatively limited increase in agricultural land. However, transformational processes in different countries are distinct, they are often accompanied by social or environmental costs that prevent the achievement of a positive effect and endanger the very sustainability. Further transformation processes in the agrarian sector will continue to be based on increased productivity but particular attention is paid to the economic and environmental aspects of sustainability (Food and Agricultural Organization of the United Nations, 2016).

It is worth noting that the concept of sustainable agriculture arose later, probably because of its specificity. The impetus for the development of this concept was the Brundtland Report (1987) and the United Nations

Conference on Environment and Development in Rio de Janeiro in 1992 (Raman, 2006; Zegar, 2005) and Rio+20. The concept of sustainable development in agriculture has its peculiarities since it is the most widespread and most important area of human activity, because:

- production is aimed at the satisfaction of the basic human needs;
- is the main user of rural areas;
- naturally and significantly affects the environment;
- takes the main place in the civilization development of interaction with the environment;
- performs complex functions: produces both food and industrial products, protects the environment and landscape, is the basic factor of the viability of the rural area, etc.

The complex nature of the concept depends on the numerous local natural conditions, on the system of soil cultivation, and other factors. According to Faber (Faber, 2010), these features can be generalized in the following short definition: "Sustainable agriculture provides an opportunity for simultaneous and harmonious achievement of economic, ecological, and social goals of agrarian production."

Along with that, the transition to a “green” way of development requires special attention to the infrastructure of rural areas. Considering the longevity of the infrastructure, it is extremely important that the decision on its development is not focused on the use of technologies that are based on the intensive use of resources and cause the most severe pollution. Adequate infrastructure plays a providing role for other sectors of development, also affects the reduction of regional differences.

At the same time, the Ukraine–EU and Moldova–EU Association Agreements define the main tasks for improving the quality of life in rural areas in the direction of green growth, which is to increase the skills of peasants in maximizing the benefits of diversification of the rural economy, their understanding and involvement in processes of local development. The complex of measures to fulfil these tasks includes: stimulating the development of non-agricultural economic activity of rural communities; raising the level of knowledge and practical skills of rural residents in order to enable them to initiate and carry out certain activities; support for the development of local infrastructure, which provides the general conditions for the functioning of a diversified rural economy and increasing the level of access of the population to basic services (Heiets, 2016).

Consequently, given the fact that the course of green growth has the potential to support economic and social development and can provide conditions, under which natural assets can continue to provide material goods and services, on which the economy and the welfare of people depend to a large extent, it is the main goal of the green transformation of agricultural production. Moreover, “green” restructuring can bring a lot of positive results, which may be an impetus for the growth of the economy, in particular, the emergence of new sources of economic growth, increased productivity and innovation level, the creation of new jobs, and access to foreign markets, as well as new budget revenues.

It is important to note that the concept of green growth does not replace the concept of sustainable development but serves as a practical tool for achieving the goals of sustainable development. Both concepts are based on the principles of interaction between society and nature and are aimed at meeting the needs of not only modern but also future generations.

The generalization of the above allows highlighting the peculiarities of the concept and strategy of the green growth of the OECD:

- natural capital is considered as a factor of production, as productive capital, the restoration and expansion of which require investment;
- environmental policy is considered as an investment policy aimed at increasing the efficiency of the use of natural resources through the development and use of the up-to-date resource- and energy-efficient low-carbon technologies;

- “green” activities and environmental innovations are designed to promote structural restructuring, increase productivity, capital, resources use, and support the transition to the technology of a new wave and infrastructure modernization;

- the close relationship between economic and environmental policies is ensured through the use of instruments such as fair pricing and taxation in order to stimulate resource conservation, introduce more rigorous but stimulating environmental standards and technical regulations, reform the system of farm subsidies, introduce an expanded system of indicators for assessing performance in indicated areas (Official site of the Ministry of Economic Development and Trade of Ukraine, 2016).

4. Foundations for the transition to green growth

The prerequisite for integration processes in Eastern European countries is to take into account the ecological importance of capital and implement basic and sectoral development goals through the prism of green growth.

The analysis of the regulatory framework for the transition to green growth (see Table 2) of the agrarian sector, in fact, indicates the need to use sufficiently differentiated instruments and their flexible application.

Despite the fact that all the countries of the Eastern Partnership with the EU support the transition to a green economy, at the national level, the green economy and sustainable development are enshrined as “fundamental principles” in a number of national development strategies, the interest in the principles of green economy in each country has its own priorities (see Table 3).

The Strategic Environmental Assessment (SEA) and Environmental Impact Assessments (EIA) are procedural tools that help target indicators in relation to green economy and other sustainable development issues to be integrated into strategic decision-making processes, in particular, at project level, thus so that the environmental and public health consequences are taken into account when making decisions. The SEA is conducted in relation to government policy plans, programs, and documents in accordance with the requirements of the UNECE Protocol on Strategic Environmental Assessment to the Espoo Convention (SEA Protocol) and the European SEA Directive (Ecologization of the economy in the EU Eastern Neighbourhood countries).

Indicators of Strategic Environmental Assessment and Environmental Impact Assessments allow determining the degree to which the state protects its natural environment. Each country, depending on the conditions in which it exists, has to prepare its coordinate system, which will help to monitor this work at the national level (Strategic protocol environmental assessment).

Table 2

Adaptation directions of statutory regulation in Eastern European countries for the transition to green growth

Country	Elements of internal support
Armenia	The concept of sustainable development has been taken into account in the Program of Strategic Development of the Republic of Armenia for 2014–2025. The objectives of green growth are enshrined in a number of documents regulating sectoral policies, such as the National Water Program and energy development strategies aimed at diversifying energy resources.
Azerbaijan	“Azerbaijan – 2020: Look into the Future” includes environmental tasks. Action Plan for Improving the Ecological Situation and Efficient Use of Natural Resources for the Period of 2015–2020. In 2016, the Ministry of Economy presented the details of a strategic “roadmap” aimed at diversifying the economy through the development of agriculture, small and medium-sized enterprises. Draft laws on Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA).
Belarus	The National Strategy for Sustainable Socio-Economic Development for the period up to 2030 sets the goals of sustainable development, envisages the introduction of a green economy. The Strategy for Environmental Protection of the Republic of Belarus for the period up to 2025. The National Action Plan for the development of the green economy – the reorientation of consumer behaviour towards more sustainable consumption patterns; development of environmentally sound physical capital for sustainable production patterns, promotion of fair and green trade; promoting awareness of the benefits of sustainable development. A new law on environmental expertise, SEA and EIA has been adopted, as well as bylaws on SEA and EIA.
Georgia	The EU–Georgia Association Agreement was signed in 2014, which came into force in 2016. The agreement covers the objectives in relation to sustainable development and the environment and introduces a special trade regime through the Agreement on Deep and Comprehensive Free Trade Area. The National Environmental Action Plan for the period of 2012–2016. In 2014, the government approved the Georgia-2020 Development Strategy, one of the most important goals of which is to promote green growth. The Code on Environmental Assessment is submitted to the Parliament.
Moldova	Association Agreement and the Agreement on Deep and Comprehensive Free Trade Area with the EU (2014), which entered into force in 2016. Moldova committed itself to actively pursue structural reforms and harmonize its legislation with the EU <i>acquis communautaire</i> , the Moldova-2020 National Development Strategy, Moldova Environmental Strategy for 2013–2023, the National Strategy for Sustainable Development of Agriculture for 2008–2015, which include goals of the green economy. In 2015, the development of “Roadmap” for the transition to a green economy and sustainable development. First and second amendments to the Espoo Convention have been adopted.
Ukraine	The principles of sustainable development and the green economy are reflected in the Action Plan on Implementation of the EU–Ukraine Association Agreement and the EU Free Trade Agreement and the Ukraine-2020 Sustainable Development Strategy (integrated package of tasks aimed at the green transformation of the economy). Parliament of Ukraine adopted the Law “On Strategic Environmental Assessment”.

Table 3

The main vectors of the implementation of green growth in the Eastern Partnership countries

Country	Measures
Armenia, Georgia, Azerbaijan, Moldova, Belarus, and Ukraine	Reform of SEA (Strategic Environmental Assessment) and EIA (Environmental Impact Assessment) legal and institutional frameworks; Development of National Green Economy Strategy; Expansion of trade opportunities in international markets for organic agricultural products; Increasing access to funding sources for green investment; Improvement of market incentives to environmentalize goods; Environmentalization of small and medium-sized enterprises through the Strategy for the Development of Small and Medium-Sized Enterprises.
Belarus, Moldova, Ukraine	Quantitative industry analysis has been carried out demonstrating the environmental, economic, and social benefits of the transition to a green economy.
Belarus, Moldova, Georgia	The development of national strategies or action plans for the green economy has begun.
Armenia, Azerbaijan, Moldova, and Ukraine	Development of green growth indicators.
Moldova i Ukraine	Enforcing in the environmental legislation, prepared on the basis of the analysis, recommendations on reforming taxes on products.
Armenia, Georgia, Moldova, and Ukraine	Policies and regulatory instruments aimed at environmentalizing small and medium-sized enterprises have begun, and the results of the analysis of increasing the environmental efficiency of small and medium-sized enterprises have been introduced into the development strategies of small and medium-sized enterprises.

The experience of realization of a roadmap to a resource-efficient, competitive green economy in the European Union countries shows the real possibilities of resource saving, increase of business competitiveness, attraction of additional sources of economic growth, and creation of jobs. Thus, the results of surveys of business companies in the EU show that measures for increasing resource efficiency at all links of the value chain can reduce the European Union's need for raw materials by 17-24% by 2030 compared to 2013 and increase EU countries' GDP by about 3.9% due to the creation of new markets and products (European Commission, 2014).

However, the typical disadvantages of modernity include the absolutisation of economic growth and its traditional indicators. It seems logical to evaluate the problem in another aspect. In these statements, economic growth is usually identified with GDP growth, profit maximization, financial flows, and other financial indicators, and the quality of growth and its costs (environmental and social) are usually ignored. It is widely recognized in the world that GDP is an inadequate indicator to reflect many important aspects of socio-economic development, including social and environmental factors.

An important feature of all six countries of the Eastern Partnership with the EU is that since the 2000s, GDP has grown, albeit to different degrees (Figure 1). Despite the fact that all countries suffered significantly from the economic crisis of 2008-2009, most of them were able to recover, integrate into the global economy, and establish strong trade relations with the European Union.

The growth of the service sector has led to a reduction in the burden on the environment. Assessing the situation in figures, despite the fact that, in general, the share of agriculture in the economy has declined (see

Table 4), it continues to play an important role in the structure of GDP and employment in some countries, thus making a significant impact on land and water resources (Greening the economy in the EU Eastern Neighbourhood countries).

Table 4

Structure of GDP of the Eastern Partnership countries by economic sectors (2015)

Country	Agriculture	Industry	Services sector
Armenia	19	29	52
Azerbaijan	7	37	56
Belarus	8	40	52
Georgia	9	25	66
Moldova	14	18	68
Ukraine	24	26	60

If the gross domestic product (GDP) took into account the depletion of natural capital, the net GDP figures in the countries would be much lower. Permanent degradation of the environment, high levels of emissions leading to climate change, inefficient use of energy, outdated and non-economic production technologies, rising losses and water scarcity, especially in agriculture, as well as costs associated with the listed problems, point to the need to intensify actions in the field of integrating environmental objectives into the sectoral economy (Organization for Economic Cooperation and Development).

5. Importance of the monitoring of the green growth process

The OECD approach to assessing the progress of green growth was presented in the 2011 Report "Towards Green Growth: Monitoring Progress" (OECD, 2014). It describes the conceptual measurement methodology,

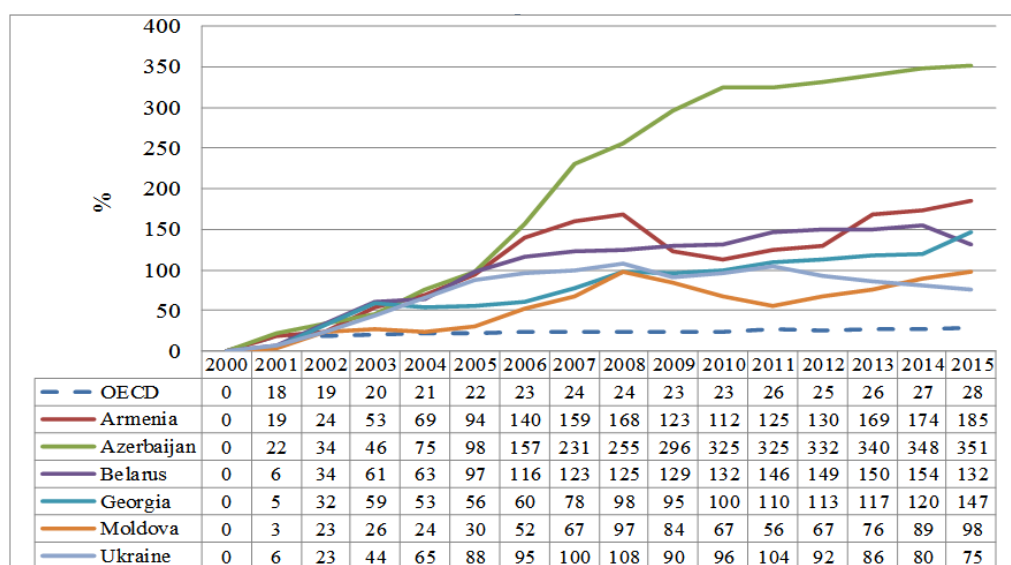


Figure 1. Changes in the real GDP of the Eastern European countries (in percent compared to 2000)

which combines the main parameters of green growth with the basic principles of accounting and the model “pressure–state–reaction”, which is used in environmental reporting and expertise (EaP Green, 2016).

In addition, particular attention should be paid to the basic OECD green growth dominants, in particular: strategic policy planning, green growth indicators, environmentally harmful subsidies, market incentives for organic products, sustainable government procurement, access to green investment financing, and the greening of small and medium-sized businesses.

To monitor the green growth process, the OECD proposes to use five groups of indicators, four of which cover different sectors of the green economy, and the fifth – macroeconomic indicators of national development: the ecological and resource efficiency of the economy; a base of natural assets; environmental aspects of life quality; economic opportunities and answers of the policy; socio-economic context and characteristics of economic growth.

Indicators of environmental and resource productivity describe key aspects of the transition to a low-carbon and resource-efficient economy. In countries rich in natural resources, their quantitative assessment is not given enough attention. However, in these countries, the results of economic development and the quality of growth are increasingly dependent on the natural environment, which simultaneously is a provider of raw resources (energy, water, materials) and an absorber of pollution and waste. Efficient use of primary resources, minimization of waste, their processing and transformation into a resource increase the profitability of business (upon condition that resource prices do not distort competition) and slow down the depletion of the base of natural assets.

To ensure the long-term stability of the country's development, it is necessary that *the natural assets base* fulfils not only resource but also absorption, service functions (biodiversity), and the load on the natural environment does not exceed its capacity. For this purpose, indicators of actual reserves and flows of renewable (water, forest) and non-renewable resources (mineral resources) are monitored.

There is a direct link between the state of the environment and the quality of human life. It should be monitored by using indicators of *the environmental quality of life* that reflect the health and safety risks, the availability of amenities and eco-system services.

Indicators of *economic opportunities and policy measures* assess the performance of the state in support of green growth: investment in green activities and technology development, stimulating eco-innovation and green procurement, reforming subsidies and prices.

Indicators relating to *the socio-economic context and characteristics of economic growth* are used to reflect the results of the green transformation at the macro level, including the attraction of additional

sources of growth, changes in the economic structure, employment and labour markets, increased incomes, and the competitiveness of business and the economy as a whole (Ministry of Economic Development and Trade of Ukraine, 2016).

The achievements of the Eastern Partnership countries on the way of green growth are determined on the basis of the Environmental Performance Index (The Environmental Performance Index, 2018) (Table 5), which characterizes their place in the field of management of natural resources and their rational use. In general, in 2018, Switzerland is recognized as the leader in terms of environmental efficiency.

Table 5

**Environmental Performance Index
of Eastern European countries for 2018**

Country	Rating	Environmental Performance Index	Changes over 10 years, %
Armenia	63	62,07	+ 13,19
Azerbaijan	59	62,33	+18,10
Belarus	44	64,98	+3,77
Georgia	94	55,69	+11,77
Moldova	112	51,97	+9,09
Ukraine	109	52,87	+25,38

The list of the main (in agriculture) green growth indicators (the OECD offers 60 indicators in total), which are in line with the declared objectives of the development of the Eastern Partnership countries and can be used to assess the effectiveness of the green growth policy. On an ongoing basis, it is especially important to monitor environmental and resource productivity, multi-factor productivity, land use dynamics, life expectancy, financing of R&D important for reducing energy and resource consumption, waste and emissions, and also the structure of energy, materials, water consumption; CO₂ emissions in terms of types of economic activity.

The analysis carried out makes it possible to argue that the green transformations of the agrarian industry make it necessary to include the environmental factor in the system of basic socio-economic development indicators. Failure to take into account the environmental factor in the approval of development strategies is largely related to the lack of country development, cost reflection of natural capital, and environmental degradation in traditional indicators. Existing traditional macroeconomic indicators (GDP, income per capita, budget indicators etc.) ignore environmental degradation. The growth of these indicators in countries today is based on technogenic natural resource-intensive development. Therefore, this creates the possibility of a sharp deterioration of economic indicators in the future in the case of depletion of natural resources and environmental pollution. Among recent works in the area of developing new approaches to measuring

development, *The Measurement of Economic Performance and Social Progress* by J. Stiglitz and A. Sen should be noted (Stiglitz, 2009). In particular, this report notes that the modern system of measuring socio-economic processes is imperfect. GDP is not an ideal indicator for measuring welfare since it does not cover various social processes, changes in the environment, some of the phenomena that are commonly referred to as "sustainability" of development.

A characteristic feature in this regard is the report of the European Environment Agency (2007), which widely uses indicators for the analysis and forecast of the environmental situation in Europe (European Environment Agency, 2007). The key point in these approaches is an attempt to take into account the damage from environmental pollution and the depletion of natural resources at the macroeconomic level, to adjust ecologically the basic economic indicators of development. However, besides, indicators of accumulated damage (pollution and waste), resource depletion (which in the long run is not compensated for by the exploration of new reserves), the impact of environmental pollution on human health, landscape degradation, assessment of ecosystem services (forest, water) are necessary.

6. Conclusions

The use of own and accumulated experience of other countries in the direction of using levers to stimulate green growth allows drawing certain conclusions regarding the response of the agrarian sector of economies of the Eastern Partnership countries. The starting point of such a forecast is the general assessment of the state of the macroeconomic system and hierarchical levels of its structure, in which the usual parameters of functioning are transformed. The rapid growth of international commodity exchange is accompanied by increased control over the state of the environment and the prevention of possible damage from uncontrolled interference. Limits and barriers to developing green growth indices and indicators are largely determined by

the lack of necessary economic, social, and environmental information. Nowadays there is a paradoxical situation in countries where many key indicators of green growth are included in the most important documents of the country's development but they are not published in official statistical reference books, which complicates their use in decision-making processes at all levels and information of the public. For widespread use of green growth indicators at all levels, it is necessary to include these and similar indicators in state statistics of the countries and broad social circulation as soon as possible. Among these indicators, the following are proposed:

- the number of people living in contaminated territories (cities);
- different indicators of natural resources intensity and pollution intensity;
- indicators of soil degradation in agriculture (growth of eroded lands, imbalance of soil organic matter);
- the number of people using drinking water that does not comply with hygiene standards (million people);
- agricultural land use efficiency indicator (ecological and resource productivity, multi-factor productivity, land use dynamics).

The passive position of countries in relation to the use of green growth indicators can forever form the raw material orientation of the economy. However, using an expanded system of green growth indicators or a system of core/key indicators will allow assessing progress towards sustainable development according to several key indicators in strategic planning.

The practical application of green growth indicators in statistical accounting corresponds to the declared program development goals of countries in the direction of green growth and promotes: increasing the competitiveness of small business forms in rural areas by reducing energy consumption and minimizing the amount of generated waste; the diversification of rural economies, and the access of small business forms to foreign markets in niche cultures (the development of new markets and the creation of new jobs); reduction of risks to economic growth, and the danger of conflicts caused by the lack of resources; effective development of organic production.

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LEGAL CHARACTERISTIC OF THE FRANCHISE AGREEMENT IN GERMANY

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Abstract. *The purpose of the article* is to study the legal nature of the franchise agreement in Germany. *The research subject* is the franchise agreement in Germany. *The methodology of research.* The study is based on the use of general scientific and special scientific methods and techniques of scientific cognition. The dialectical method allowed studying the definition of franchising agreement in Germany and its essentials. The comparative legal method was applied in order to compare doctrinal approaches to this issue. Interpretation of the content of laws and regulations of German legislation covering issues related to the conclusion of the franchising agreement in this country was carried out by means of the normative-dogmatic method. The system-structural method was used to study franchising agreement in Germany as a unitary whole (system) with coordinated functioning of all its elements. Methods of grouping and classification formed the basis for singling out a list of requirements needed to conclude franchising agreement in Germany, as well as provision to be included in this agreement. Methods of analysis and synthesis helped to investigate separate parts of such an agreement in order to formulate further conclusions. *Practical implications.* The positive experience of Germany in the regulation of issues related to the conclusion of the franchising agreement can be used for introducing corresponding changes in the legislation of Ukraine. *Value/originality.* This scientific paper is the first study in Ukraine devoted not to general issues of regulation of franchising activity in Europe but specifically to franchising agreement in a separate country (in Germany).

Key words: franchising, franchising agreement, franchiser, franchise, disclosure, essentials.

JEL Classification: K12, F55

1. Introduction

Franchising is one of the types of business activity, which allows earning extraordinary profits and achieving fast growth without significant investment or a broad managerial infrastructure. In such diverse spheres as food, trade, education, healthcare, financial services, etc., franchising is the most popular “catalyst” for international business and makes a significant contribution to world trade. Governments from different countries are turning to franchise as an effective strategy for welfare since social franchising is a reliable way to solve major social problems.

Given the positive role that franchising can play in the global economy, it is important to understand how the regulation of this institution in different countries of the world takes place. As the franchise market in Germany is well-formed and one of the most regulated, in this article we will turn to the experience of this particular state and analyse the features inherent in the franchising agreement, as well as the legislative acts that regulate this issue.

The research of franchising as a type of international business was conducted by N. V. Bezrukova, L. V. Voroniak, T. M. Hryhorenko, N. M. Hrushchynska,

O. M. Kolodiziev, O. Ye. Kuzmin, A. M. Mahomedova, V. Ye. Sakharov, V. S. Tatarinov, T. M. Tsyhankova, A. V. Tsytrat, I. M. Shkola and others. However, it is the first study in Ukraine that is devoted to franchising in Germany and, in particular, the legal characteristics of a franchising agreement in this country.

In connection with the course of Ukraine on European integration, it seems expedient to study the positive experience of the leading European countries for its further implementation in the legislation of our state. Therefore, the purpose of this article is to study the legal nature of franchise agreement in Germany – a state that has a fully formed franchise market, which has been achieved over a relatively short period of time.

2. Presentation of the main material

In Germany, franchising originated in the late 60s of the last century, when the local trade networks Nordsee (fish sandwiches to go), Ihr Platz (pharmacy), and OBI (do-it-yourself stores) began to use franchising to reach rapid growth. Due to this, from 1975 to 1985, the number of franchise companies increased from 40 to

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200. However, franchising reached the real prosperity in the early 90s after the reunification of the FRG and GDR, when the people of East Germany in search of work began to massively employ a franchise business (Marzheuser-Wood, 2014).

During the last decade, franchising in Germany has been developing at a rapid pace. Thus, from 2007 to 2017, the total number of franchise companies increased from 630 to more than 1000. During the same period, the total number of employees in this area increased from 250 thousand to 700 thousand. The growth rates of the annual turnover of franchise companies in Germany are promising. If in 2007 the annual turnover in the field of franchising was about 40 billion euros, then in 2017, it was estimated at about 99.2 billion euros, that is, it increased by more than 100% over 10 years. The three largest sectors of franchise activity are service provision (39%), retail trade (31%), hotels and gastronomy (20%) (Statistiken zum Thema Franchise).

On the territory of this country, there are a large number of both domestic and foreign franchise networks. National franchise networks such as Apollo-Optik, Arko Kaffee und Confiserie, and BabyOne are located next to such giants as McDonald's, Hertz, Intercontinental Hotels, Domino's Pizza, Burger King, and Mailboxes. Each year Impulse conducts research and selects the top ten German franchise networks, which later rewards valuable prizes.

The German Franchise Association is an important authority in this segment. The German Franchise Association is a member of the European Franchise Federation and the World Franchise Council. This organization regularly conducts relevant research, publishes statistics and recommendations.

Despite the fact that the German Franchise Association (hereinafter referred to as the Association) is a non-governmental body and its membership is not binding, the principles contained in the Association's Code of Ethics, adopted in accordance with the European Code of Ethics for Franchising, have a certain effect on the legal relationship in this field. This is due to the fact that the Association is a union of franchise companies, for which it establishes mandatory rules of conduct and verifies whether strict membership requirements have been observed when joining the Association. Considering that membership in the Association is considered a sign of the quality and authority of the franchisor, they all adhere to the guidelines to become (and remain) members of the Association.

There is no legal definition of franchising in Germany. When considering the relevant category of cases, German courts use the definition given in Clause 1 of the European Code of Ethics for Franchising (European Code of Ethics for franchising) (hereinafter referred to as the Code of Ethics) adopted by the European Franchise Federation, to which the country under consideration belongs. According to this definition, franchising is

a system for the sale of goods and/or services and/or technologies based on close and constant cooperation between legally and financially independent enterprises, a franchisor and a franchisee, within which the franchisor provides franchisee with the right and entrusts with responsibility to carry out business activity in accordance with the concept of franchisor. The franchisee, in exchange for direct or indirect financial remuneration, has the right to use the franchisor's trade name and/or trademark, know-how, business and technical methods of activities, procedural system, and other intellectual property rights, using ongoing commercial and technical assistance within the framework and for a period of validity of a written franchising agreement concluded between the parties for this purpose.

As can be seen from this definition, the parties to the franchise agreement are franchisor and franchisee. The law does not impose any restrictions on the business form of the franchisor, however, its most common form in Germany is a limited liability company (GmbH) because it requires a minimum investment amount (at least 25,000 euros) and guarantees limited liability to creditors (within the framework of investments). Other common forms of franchise companies are joint-stock company (AG) (minimum share capital – 50,000 thousand euros) and a newly introduced entrepreneurial company with limited liability (Unternehmergesellschaft (haftungsbeschränkt)), which to a certain extent, is similar to a limited liability company (GmbH) and is popular due to the lack of a requirement for a minimum amount of capital (Metzlaff, Billing, 2011).

In Germany, there is no special law on franchising, but this issue is fully regulated. Thus, the rules governing the implementation of franchising activities are contained, in particular, in: the general principle of culpa in contrahendo (the principle of pre-contractual liability in civil law), due to which a pre-contractual obligation to information disclosure was created; laws that provide for liability for misleading the person; agency law, including the provisions on reimbursement; Commercial Code of Germany (hereinafter referred to as the German CC), in particular, in the principle of integrity, which is enshrined in this legal act; in the rule that agreements that violate the requirements of morality are invalid, as well as in the provision that in the presence of serious circumstances, the effect of long-term agreements may be terminated.

In accordance with German law, the parties must act honestly and fairly when entering into business relations. This requirement also includes obligations to voluntarily disclose information based on the principle of culpa in contrahendo, provided for in Part 2 of Art. 311 of the German CC (Bürgerliches Gesetzbuch). When negotiating a franchising agreement, both parties must provide true information, not mislead one another and not make false promises, but they do not have the right to disclose material information. This is especially true for data that can significantly affect the success of the

transaction (performance of other franchisees, financial risks, etc.) and encourage the potential franchisee to become a part of the network. The franchisee's consent to the franchise must be based on reliable and verified data, so if the franchisor or his representatives provide false information, they will be liable in accordance with Part 3 of Art. 311 of the German CC.

That is why a franchisor who wants to place his business in Germany should be very careful because any non-compliance with the principle of culpa in contrahendo will mean that the agreement can be declared invalid. In the event of a breach of the above requirement, the franchisor must also return the franchisee to the state, in which the latter would be if the franchisor fulfilled his obligation to disclose information. This means that the unscrupulous franchisor must repay the funds received for the sale of the franchise, as well as to indemnify the franchisee all losses incurred in connection with the transaction. The law establishes a limitation period of three years for claims for recognition of a franchising agreement invalid. Its course begins with the moment when the franchisee has learned about the circumstances that may be the basis for filing a statement of claim in court.

Although it is not legally defined, which information should be disclosed when negotiating a contract, you can learn about it by referring to German Case Law and the Code of Ethics. Consequently, when entering into an agreement, data should be provided on: 1) the concept of franchising; 2) the initial and permanent provisioning provided by the franchisor; 3) the date of the establishment of the franchise network; 4) availability of "pilot" (trial) version of franchising activity; 5) the availability of the necessary capital and labour force for conducting franchising activities; 6) accurate information on the profitability of franchising activities; 7) the actual number of franchisees; 8) the number of pending court cases that may affect the activities of potential franchisees (Part 3 of the Code of Ethics).

Information must be provided within a reasonable time before the conclusion of the franchising agreement. At the same time, the provision on the need for disclosure of data should not affect the conclusion of a preliminary agreement, if the parties have agreed on its conclusion. Since the duration of such an agreement is rather short, it does not entail significant economic consequences and does not bind directly to conclude a franchising agreement.

At the legislative level, it is not prescribed in which form the necessary data is provided. However, the German Franchise Association recommends providing them in writing. The written form is also provided for by the German Case Law and the Code of Ethics (Clause 3.4). German lawyers who specialize in this field have even developed special templates with the necessary list of issues to ensure full disclosure.

In addition, in Clause 2.2 of the Code of Ethics, additional requirements are imposed on the franchisor,

which he must perform before concluding a franchise agreement. They are as follows: 1) the franchisor must successfully engage in business over a period of time and run at least one pilot project before establishing his own franchise network; 2) the franchisor must be the owner or legal user of the company name, its trademark or any other special designation of the network; 3) the franchisor must undertake initial training for the franchisee, as well as provide him with ongoing commercial or technical support throughout the contract.

In turn, the franchisee is obliged: 1) to make maximum efforts to develop the franchise network, to maintain its authenticity and reputation; 2) provide the franchisor with accurate data for verifying the effectiveness of doing business and compiling the financial statements necessary for the effective management of the franchise network; 3) provide the franchisor and/or his representatives with permanent access to the premises of the franchisor and provide necessary data at the franchisor's request within reasonable time-limits; 4) not disclose to third parties the information on the know-how provided by the franchisor, either during the period of validity of the agreement or after its termination (Clause 2.3 of the Code of Ethics).

Civil law does not provide for essential terms and conditions of a franchising agreement, which allows the parties to agree on their own discretion. Restrictions on the application of certain provisions of the franchising agreement are an exception and mainly derive from antimonopoly legislation and laws relating to the terms of standardized agreements.

Nevertheless, Clause 5.4 of the Code of Ethics contains a list of conditions that it is desirable to include in franchising agreement. They are as follows: 1) the rights and obligations of the franchisor and franchisee; 2) the goods and services provided by the franchisor, as well as the transfer of know-how; 3) franchise fee; 4) the procedure for the use of intellectual property rights; 5) duration of agreement: it should be enough for the franchisee to be able to return the initial investment (usually a franchising agreement is concluded for 10 years); 6) the conditions under which the contract may be terminated or renewed; 7) the conditions under which a franchisee can sell franchise business; 8) the franchisor's right to develop this franchise network; 9) the provision for the immediate return of the franchisor's property in the event of termination of the agreement and, if necessary, payment of compensation to the franchisee; 10) control right: the franchisee should receive recommendations on the limits of compliance with the concept of franchising activities; 11) sanctions for breach of a contract.

Art. 242 of the German CC states that the parties to the agreement act in accordance with the principle of integrity. This is the basic principle of German law and the general provision, which allows the court to adapt its decision to the circumstances of a particular case.

The realization of this principle consists in assessing the terms of the agreement in terms of their reasonableness in accordance with the requirements of Art. 307 of the German CC. The principle of integrity requires that the terms of the agreement are honest. The decision as to whether a particular behaviour violates this fundamental principle depends on the circumstances of each individual case.

Art. 305 of the German CC, entitled "General conditions for the conclusion of agreements", applies to a franchise agreement insofar as one party joins the terms of the agreement, established by the other party (Part 2, Article 305). The terms of the agreement must meet the criteria of reasonableness and fairness and should not place one of its parties in an extremely unfavourable position with respect to another, which violates the requirement of integrity. Otherwise, these provisions are invalidated and cancelled. For example, a franchisee who is not a limited liability company has the right to cancel the agreement within 14 days from the moment of its conclusion, if it contains an obligation to take delivery from the franchisor more than once, while the total amount of the franchisee's contribution to the newly created company does not exceed 75 thousand euros (Franchise 2019).

The regulation of issues related to the conclusion of a franchise agreement is also governed by the Unfair Contract Terms Act (UCTA), adopted in 1977 by the United Kingdom Parliament (Unfair Contract Terms Act 1977). In accordance with this Law, any provision of the model agreement, which has not been discussed by its parties, is subject to verification of equity. If such a provision can cause infliction of loss to the franchisee, the franchisor is required to justify the need for it to be included in the agreement. In addition, according to the UCTA, the franchisee has the same security guarantees as the buyer.

However, it should be noted that the UCTA is not an act binding on the international level. If the franchisor is registered in another country, the law can be applied that acts in its territory. However, in Germany, when concluding a franchising agreement, the UCTA is used almost always.

Since the franchising agreement in Germany does not require state registration, it is considered concluded from the moment when the parties have reached agreement on all terms. Compliance with the written form of this agreement is mandatory.

Further legal relations between the franchisor and the franchisee, if the franchisee undertakes to continue to purchase the goods and equipment from the franchisor, are regulated mainly by the agency law, as well as by the antimonopoly law. As the German antimonopoly legislation was fully aligned with the EU provisions in 2005, issues such as restriction of competition, price control, conducting procurement, and determining the territory of the agreement are currently regulated by the European Competition Law. According to Art. 101 of the Treaty on the Functioning of the European Union (TFEU)

(Treaty on the Functioning of the European Union), it is prohibited to conclude such agreements between enterprises that may affect trade between member states of the EU and which are aimed at preventing, restricting or distorting competition in the pan-European market.

The validity of the franchising agreement is not legally binding, as the parties, as already noted, are free to agree on the terms of the contract. However, the provisions of the contract that the term of its action is, for example, 40 years, can be abolished in view of the illegal restriction of franchisee's business freedom. On the other hand, the condition for a too short term of the agreement (1 year) can also be considered invalid, because for such a period of time the franchisee will not be able to establish such franchise activities as to fully recover all funds invested in the purchase of a franchise.

At the same time, there are certain timeframes for the purchase of goods and equipment from the franchisor. Thus, in a franchising agreement, it is often prescribed that the franchisee is obliged to buy goods only from the franchisor and no one else, including other franchisees. Such a franchise obligation is legitimate only if it does not violate the rules of competition law and is necessary to maintain the authenticity and reputation of the franchise network. If such an obligation is not necessary to maintain the authenticity and reputation of the franchise network, then the Block Exemption Regulation (BER), adopted in accordance with Art. 101 (3) of the Treaty on the Functioning of the European Union (Commission Regulation). According to Art. 5 of this Regulation, the procurement obligation is not subject to its regulation, if its term does not exceed five years. If the term of the obligation exceeds five years or is automatically prolonged then the provisions prescribed in the BER are applied.

As a rule, a franchising agreement is terminated due to the expiration of its validity, receiving notice of its termination or concluding an agreement to abolish franchise relations. However, there may be circumstances that lead to sudden contradictions between the franchisor and the franchisee, as a result of which one party may wish to terminate the franchise agreement even without prior notice. According to German law, termination of the contract without notice is possible only when there is a good reason for this, and the franchisee (or franchisor) has officially filed a previous application for early termination of the agreement. Only significant breach of the terms of a franchising agreement is a ground for its termination without notice. Reasons for bringing the franchising agreement to an early termination without prior notice may be, for example, refusal to make a payment for the right to use a franchise or repeated violation of the main rules established for a franchise network (for example, a ban on cooperation with competitors). Determining whether there is a reason to terminate the contract is sufficient requires a comprehensive assessment of the circumstances of each individual case, as well as the interests of the franchisor

and franchisee. The termination of the contract must take place within a reasonable period of time from the moment the circumstances arise, which has led to a contradiction between the parties.

It should be noted that according to the German law on standard business terms and conditions, the provision on "sufficient ground" applies to all franchising agreements without exception, even if it is not specified in the agreement itself. The same applies to the need to send an official notice before terminating a franchise agreement without prior reference. After the termination of the franchise agreement, the franchisee has the right to demand compensation for the income that he could obtain in the further implementation of franchising activities. If his claim is satisfied, the reimbursement may be equal to the average annual income over the past five years of activity. No reimbursement will be awarded if the agreement was cancelled by the franchisee itself or in the event of termination of the contract without prior notice over violation of rules of conduct by the latter (Metzlaff, Billing, 2011).

Survival of the franchising agreement may be made solely by mutual consent of the parties. For this reason, the franchisor may refuse to renew the contract without substantiating his decision. However, it should be noted that the franchisor's freedom of choice is limited to a claim for damages. So, if the franchisor expressed his intention to extend the franchise agreement and thus prompted the franchisee to invest in updating the equipment necessary for doing business on the eve of the expiration of the agreement, and then refused to renew agreement, then the franchisee had enough grounds to apply to the court with a claim for damages.

3. Conclusion

On the basis of the above, we conclude that Germany has formed a franchising market with a large number of local franchising companies in more than 42 different

areas: from retail, fast food establishments, hotels, education, car rental, and provision of domestic services to energy, health care, and telecommunications.

There is no single law on franchising in this country. Since the provisions governing the issues of franchising in general and the franchising agreement in particular are in the German Civil Code, the German Commercial Code, in a competitive, case law, antimonopoly legislation, as well as in European and international legal acts, it can be concluded that the franchising agreement in Germany belongs to the category of mixed contracts.

The franchisor and the franchisee are subject to the principle of culpa in contrahendo on the disclosure of information at the stage of negotiations on concluding a franchising agreement, during which the parties must provide true data, not mislead each other, and not make false promises. As a result of the violation of this principle, guilty persons may be brought to civil liability and are obliged to reimburse for damages.

In accordance with German civil law, the parties are free to determine the terms of the franchising agreement and may set them at their own discretion, but taking into account the general principles provided for by the Civil Code and the rules established in the anti-monopoly legislation. The recommended list of provisions to be included in the agreement is provided for in the European Code of Ethics for Franchising, which is applied in Germany for the regulation of issues related to this institution. Also, this act contains additional requirements for the parties to the franchising agreement and the key principles of their activities.

The maximum and minimum terms of the franchise agreement in the country under consideration are not provided, but usually, it is concluded for 10 years – the period for which the franchisee can recover the funds spent on the purchase of a franchise.

A franchising agreement may be terminated due to the expiration of the term, its invalidation or upon a mutual agreement of the parties.

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SUSTAINABLE AGRICULTURAL LAND USE IN THE POST-SOCIALIST CAMP COUNTRIES: MONITORING AND EVALUATION

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Abstract. The purpose of the article – to carry out the monitoring and evaluation of agricultural land use sustainability in the post-socialist camp countries. *Methodology.* During the study, the following methods were used: dialectical, abstract and logical, system analysis, index, and graphical comparison. Monitoring and evaluating of the agricultural land use sustainability involves periodic tracking relevant indicators based on available official statistics, central authorities' information, local authorities and carrying out, on the basis of monitoring, the ranking in the post-socialist camp countries by comparing the obtained results with their best values. Monitoring and evaluating of the agricultural land sustainability conducted to monitor the process of sustainable agricultural development goals implementation, problems' identification of regions agricultural land use and their causes, improving the efficiency of administrative decisions of central executive authorities, local authorities and the land market actors. *Elements of scientific innovation.* Existing methods for determining the integral indicator for comparing the land use sustainability and own method was suggested, by which the relevant calculations and conclusions were made. The proposed methodology ensures the implementation of appropriate objectives and indicators for monitoring the Global Sustainable Development Goals 2016–2030 achievement in Ukraine. *Practical significance.* The availability of the integral environmental and economic indicators at the macro level is ideal for people who make decisions in terms of consideration of the environmental factors on the country's development. The main goal of an integral indicator for comparing the sustainability of land use development in the regions of Ukraine creating is to ensure the possibility of ranking these regions in order of their total potential decreasing and thus defining "depressed" for providing the state aid to them. *Conclusions.* According to the given methods, it has been proved that agricultural land use in the countries of the post-socialist camp has a positive dynamics but the sustainability indicators for all indicators have not achieved yet. It has been defined that Estonia, Latvia, and Slovenia got the first three places; and Croatia, Lithuania, and Romania got the last places in the ranking of sustainability of the agricultural land use for the countries of the post-socialist camp. In accordance with settlements for solving the problems in the area of agricultural land use, the state should focus on less developed regions where the environmental situation is difficult, productivity and land return reduced, slowed population growth, and which have an excessive migration.

Key words: sustainable development, agricultural land use, method, methodology, region, indicators.

JEL Classification: C83, O52, Q01, Q15, R11

1. Introduction

In September 2015, in a framework of 70th UN General Assembly session in New York, UN Summit for the adoption of the Development Agenda beyond 2015 was held. The summit is seen by the international community as an event of historic significance. Summit's problems covered all aspects of socio-economic development, national competitiveness, environmental and energy

security and a global partnership for development, and the volume of thorough preparatory work had no precedent in history. After the summit before the UN Member Countries, facing new challenges identified adapt global goals and their monitoring. In Ukraine, there also has started work on sustainable development goals establishing, for 2016–2030 years, on the relevant targets and indicators for monitoring of the objectives achievement (UNU, 2017).

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Currently, FAO has developed a Global Strategy for agricultural and rural statistics improving (FAO, 2017), in which various tasks will be implemented, including the task of defining parameters and indicators for food security monitoring (SDG 2), and – the global warming, biofuels, and environment.

The initiative on developing the Global Strategy for improving agricultural and rural statistics was a response to the decline in the quantity and quality of agricultural statistics. The purpose of the Global Strategy is to provide access to national and international statistical systems to obtain baseline data for SDG monitoring. However, the system of indicators is not yet presented by FAO and, therefore, not monitored. In Ukraine, at the official level, there is also no monitoring and evaluation of sustainable agricultural land use in Ukraine's regions.

2. Methodology and methods

The most authoritative foreign researchers on the sustainable development problems are Donella H. Meadows (2004), G. Brundtland (2002), M. Ashby (2015), N. Droste (2016), K. Fiorella (2016) and others. However, these researchers did not conduct the investigations of agricultural land use sustainability in Ukraine.

Domestic scientists offer different approaches to indicators system building for sustainability assessment. The most convenient way, from the viewpoint of the decision-making, is the definition of a single integrated indicator, but in respect to the methodology, it is very difficult to develop this indicator.

Nowadays, about three thousand ecological indicators are developed and used in practice in the world, and more than 2/3 of them are partial ecological indicators. The existence of such a large number of environmental parameters requires their appropriate classification for more targeted and effective use of indexes and indicators in identifying and solving the specific range of environmental challenges.

The availability of the integral environmental and economic indicators at the macro level is ideal for people who make decisions in terms of consideration of the environmental factors on the country's development. The researchers can judge the degree of the stability of the country, ecological development trajectories according to only one such indicator. Therefore, this indicator can be a kind of analogue of GDP, GNP, national income, with the help of which the success of economic development and economic prosperity is often measured. However, at present, there is no universal integral indicator of sustainability.

In the prior studies (Kotyko, 2012), we presented the results of critical analysis and synthesis of existing approaches and methodologies for regional development assess. In previously defined ones, it should be provided a new method of monitoring and evaluation

of the state regional policy implementation (The Method of the State Regional Policy Implementation Monitoring and Evaluation, 2015). According to the socio-economic development monitoring by 2015, by the list of measure's indicators, specified in the Order of monitoring and evaluation of implementation of the state regional policy (The Procedure of the State Regional Policy Implementation Monitoring and Evaluation, 2015), the results are monitored in 12 areas: the economic and social cohesion; economic efficiency; investment and innovation development and foreign economic cooperation; the financial self-sufficiency; small and medium enterprises; labour market efficiency; infrastructure development; renewable energy and energy efficiency; accessibility and quality of education services; availability and quality of services in health care; social protection and safety; environmental management and environmental quality.

The rating evaluation is performed by comparing the deviation values of each concrete region of their best values in the respective regions (reporting) period and the corresponding regions ranging from the 1st to 27th place. The rating evaluation is based on the parameters relative deviations calculation of each region from maximum and minimum values of such parameters in the other regions, by the formula:

$$R_j = \sum_{i=1}^n \frac{x_{maxi} - x_{ij}}{x_{maxi} - x_{mini}} + \sum_{i=1}^n \frac{x_{ij} - x_{mini}}{x_{maxi} - x_{mini}}, (1)$$

where R_j – the sum of ratings of a particular region for each of the indicators, characterized the area of activity; x_{ij} – the value of i -indicator for j -region; x_{maxi} – the maximum value of i -indicator; x_{mini} – the minimum value of i -indicator.

The formula's first part is used for indicators' evaluation, which increase is positive (for example, the volume of industrial output per capita), the second part – for indicators' evaluation, which increase has a negative value (for example, the amount of unpaid wages). Determining the arithmetic mean of the rating sum of the particular region by all annual assessment indicators, describing an area of activity, based on a formula:

$$R_{cpj} = \frac{R_j}{n}, (2)$$

where R_{cpj} – the arithmetic mean of the rating sum of the particular region by all assessment indicators of an activity area; n – the number of indicators, which are calculated by different directions.

The indicators' calculations determined the integrated grade as the average value of the rating sum of a particular region in all directions by the formula:

$$I_j = \sum_{m=1}^m \frac{R_{cpj}}{m}, (3)$$

where I_j – the average value of the rating sum of a particular region in all directions; m – the number of directions, for which the calculation was made.

It should be noted that some of the complex rating evaluation indicators of socio-economic development by 2015, which are published by the Ministry of Regional Development, Construction and Housing and Communal Services of Ukraine (The Socio-Economic Development Monitoring in 2015, 2016) can be considered as partially reflecting the level of agricultural land use sustainability. However, the indicators are scattered in different directions, partly presented in the report and not allow monitoring and making a holistic assessment of the agricultural land use sustainability of Ukraine's regions.

On the other hand, the Methodology mentioned above is used to determine the effectiveness of the state regional policy implementation. The main purpose of monitoring and evaluating the agricultural land use sustainability of Ukraine's regions is to allow their rankings and determination as "depressed" that require implementation of the appropriate measures for sustainable development goals achievement.

Since the official approved procedure of monitoring and evaluating the sustainability of agricultural land use regions of Ukraine does not exist, we propose to conduct such monitoring on the basis of the methodology substantiated above (FAO, 2017) with the necessary modifications that meet the sustainable development goals of Ukraine for 2015–2030.

Methodological explanations for Figure 2.

1.1. *The share of arable land in the farmland square* – the percentage of arable land of agricultural land:

$$1.1 = \frac{A_g L}{A_s L}, (4)$$

$A_g L$ – agricultural land is defined as land systematically used to produce agricultural products; it includes arable land, fallow, permanent crops, hayfields, and pastures. Agricultural lands may be owned, rented, and may be used on a temporary or permanent basis by agricultural enterprises, and individuals; $A_s L$ – arable land – land plots that are permanently cultivated and used for agricultural crops including permanent grasses and clean fallow, areas of hothouses and greenhouses. Arable land doesn't include hayfields and pastures ploughed up for full improvement and when they are permanently used under grass fodder crops for hay-mowing and livestock grazing, as well as inter-row spaces in orchards used for sowing.

1.2. *Monetary valuation of a hectare of arable land* (normative monetary value per hectare of arable land):

$$1.2 = R \cdot P \cdot T, (5)$$

R – rental income on arable land; P – price quintals of grain; T – a term of rental income capitalization (33 years).

1.3. *Forest area*:

$$1.3 = \frac{Fl}{Tl}, (6)$$

Fl – forest land; Tl – the total land area.

1.4. *Inter-regional migration* – the difference between the number of arrivals in an area and the number of departures abroad.

1.5. *The rate of natural population growth in rural areas* – the difference between live births and the number of deaths.

1.6. *Average monthly nominal wage in agriculture*. *Nominal wages* – payment to employees in cash and kind for time worked or work done, tariff rates (salaries), bonuses, allowances, and other payments. It includes mandatory deductions from employee salaries, income tax, single social tax, war tax.

1.7. *Supply of housing in rural areas*:

$$1.4 = \frac{Hs}{Rp}, (7)$$

Hs – the housing stock – a set of premises, including residential buildings, special buildings (dormitories, shelters, homes for elderly and disabled people – adults and children, children's homes, and boarding schools), apartments, office accommodation, other accommodation in buildings suitable for living; Rp – rural population – people living in rural areas.

1.8. *Agricultural output per 100 hectares of farmland* – production crop and animal production – total production volume in physical terms is estimated by dividing the production volume by agricultural land for the reporting year.

1.9. *Land return*:

$$1.9 = \frac{1.2}{Ap}, (8)$$

Agricultural products (at constant prices) – the value of livestock and crop production.

1.10. *Per capita agricultural production*. Per capita crop and animal production is estimated by dividing the production volume by the average annual number of present population for the reporting year.

1.11. *Polluted water into surface waters* – the volume of allowable emission of non-treated and contaminated waste (industrial and municipal) discharged into surface waters.

1.12. *Emissions of harmful substances into the atmosphere per 1 km²* – air emissions, total and carbon dioxide emissions.

1.13. *The wastes generation per 1 km²*. Waste – any substance, materials made as a result of the production or consumption, as well as goods (products) that wholly or partially lost their consumer properties and have no further use for the place of their creation and from which the owner should get rid of by recycling or removal.

3. Data and estimation procedures

Monitoring and evaluation of the agricultural land use sustainability involve periodic tracking of relevant indicators based on available official statistics, information of central authorities, local authorities and,

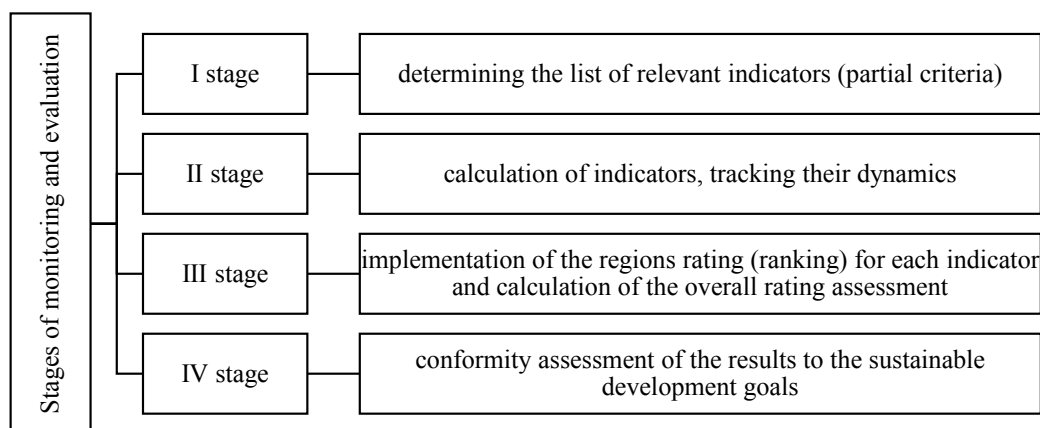


Figure 1. The monitoring and evaluating stages of land use sustainability

Source: created by the authors

on the basis of monitoring, carrying out the ranking of Ukrainian regions by comparing the obtained results with their best values. Monitoring and evaluation of the agricultural land sustainability are conducted to monitor the process of sustainable agricultural development goals implementation, problems' identification of regions agricultural land use and their causes, improving the efficiency of administrative decisions of central executive authorities, local authorities and the land market actors.

Given the goals and objectives of monitoring, we can identify four stages of monitoring and evaluating the agricultural land use sustainability (Figure 1).

At the first stage, in order to determine the list of relevant indicators, it's necessary: to justify the assessment criteria (which information should be available for simple calculations, there should be a few, but they must describe, as much as possible, the development of land areas); to develop such methodology for calculating the integral index that organizing by different methods did not significantly affect the position in the ranking. In addition, it should be quite simple and clear, and partial indicators, obtained during the calculation of integrated indicators, should not be just relative ratios but have economic content.

Since, as noted above, the indicator system should reflect the level of achievement of global Sustainable Development Goals 2015-2030, and then to the partial list of criteria, in our view, should include the following parameters (Figure 2): growth class or monetary evaluation of soil per hectare of farmland; the share of arable land in the farmland; forested area; the volume of agricultural production per 100 hectares of farmland; land return; the volume of polluted water in water surface; emissions of harmful substances into the air; formation of toxic industrial waste; the volume of agricultural production per capita; interregional migration; natural population growth in rural areas; average nominal wages; provision of housing.

As an integral indicator of the land use sustainability in Ukraine (at the macro- and meso-levels) according to the analogue to the green GDP, we propose to calculate the indicator of the gross agricultural production per capita taking into account the economic losses from soil pollution and other forms of anthropogenic influence:

$$SD_{lu} = \frac{GAP - EL}{P}, \quad (9)$$

However, despite the fact that in Ukraine the population tends to decrease, to apply the indicator to keep track of the dynamics of the land use sustainability is incorrect because with other conditions remaining the same, or even with some deterioration in their values, the decrease in population will lead to the increased values of the land use sustainability, which denies the essential meaning of the sustainability. Therefore, the integrator should be used as the basic integral indicator of the land use sustainability and for comparisons at the regional level. For the assessment of the changes in the land use sustainability over time, formula 2 can be used:

$$SD_{lu} = \frac{GAP - EL}{AL}, \quad (10)$$

It is clear that the area of the agricultural land, as well as the population, may be reduced; however, if such changes are the results of the anthropogenic impact, the consequences of this will be reflected in the formula through economic losses (EB). Other reasons for the withdrawal of agricultural lands from circulation have positive environmental or social consequences (e.g., for the establishment of the protected area) and, therefore, they do not distort the results of calculation of the indicator.

Another situation can happen when the agricultural land area will be expanded. However: firstly, for Ukraine, considering the indicators of agricultural land development, it is impossible at least in significant quantities; secondly, in this case, the indicator CP_3 will be decreased (with other conditions remaining the same).

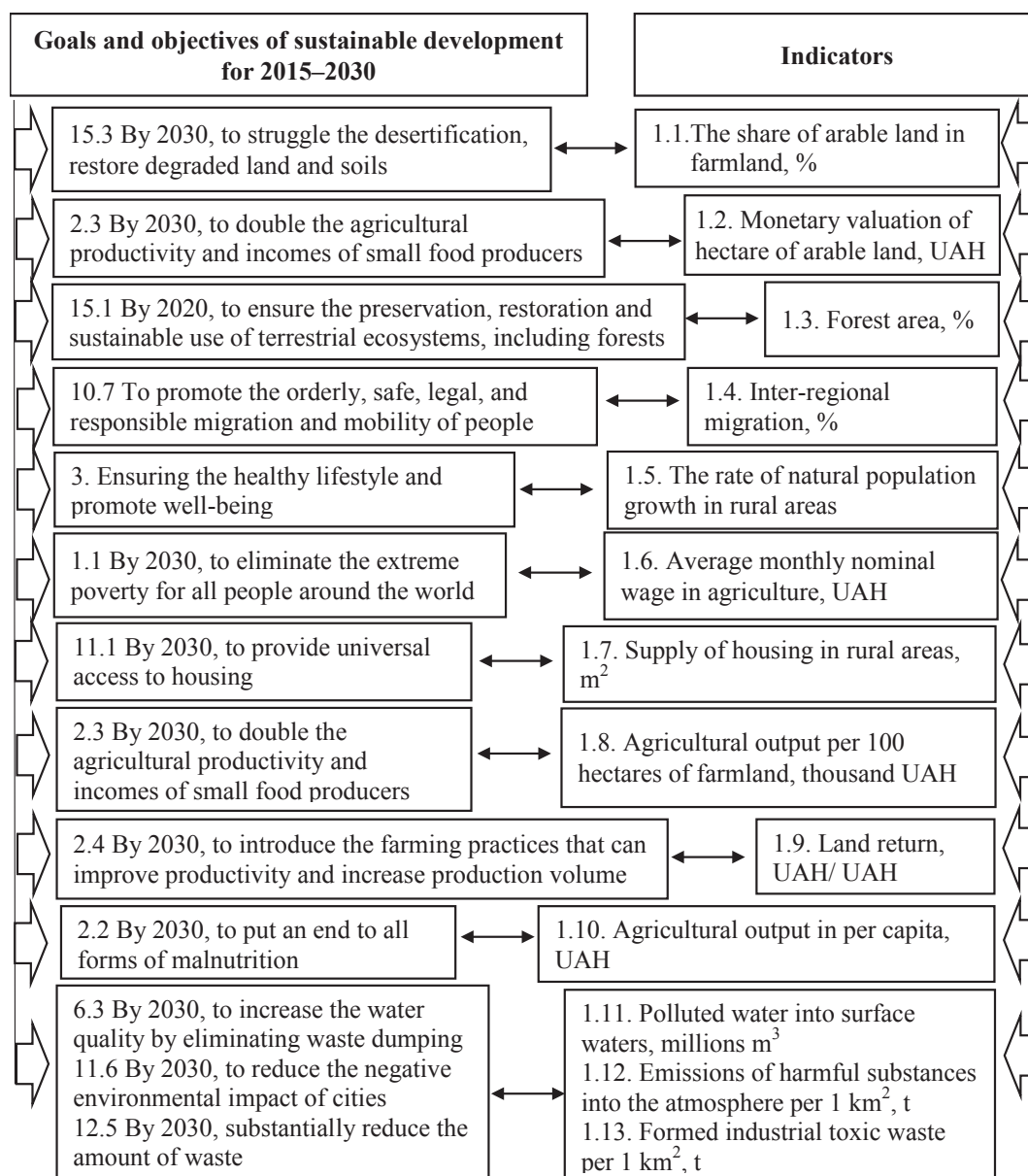


Figure 2. The system for monitoring and assessment of the agricultural land use sustainability indicators of Ukraine's regions

Source: created by the authors

4. Results

At the second stage, the calculation of the proposed list of indicators is provided. The data for 2006 and 2013 are presented in Tables 1, 2, and 3.

The range of these fluctuations according to the indicators, calculated by different methods, in most countries ranges from zero to one and only in Slovakia and Ukraine the fluctuation is two units. The value of the indicator in Slovenia is significantly different from the indicators of other countries. The excess in the value of the indicator $SD_{lu(I)}$ compared to $SD_{lu(II)}$ is set in all countries.

Positive changes in most regions are found in two partial indicators: the land return (a negative trend is

noted in the AR of Crimea, Donetsk, Zakarpattia, and Lviv regions) and the volume of polluted water into surface waters (a negative trend is noted in the AR of Crimea and Sumy region).

The dynamics study of the specified indicators shows the improvements in all regions according to six partial indicators: monetary evaluation of farmland per hectare (the largest increase is found in the Cherkasy region and the lowest one – in the Chernihiv region); average nominal wages (the largest gain is set in the Kyiv region and the lowest – in the Odesa region); the volume of agricultural production per 100 hectares of farmland (the largest increase

Table 1

**The land use sustainability assessment of the post-socialist countries
by the integral indicator in 2013, units of national currency**

Countries	The calculation of SD_{lu} by formula 9	The calculation of SD_{lu} by formula 10	Values obtained by formula 10 in relation to the values obtained by formula 9 (+,-)
Bulgaria	303,7	628,6	324,9
Latvia	178,3	302,6	124,3
Lithuania	576,9	730,2	153,3
Poland	423,8	1487,2	1063,4
Romania	1547,8	3521,8	1974
Slovakia	79,0	306,5	227,5
Slovenia	0,0	0,0	0,0
Croatia	1641,5	7870,2	6228,7
Czech Republic
Estonia	133,8	280,2	146,4
Ukraine	2697,6	3444,1	746,5

Source: calculated by the authors according to the State Statistics Service of Ukraine and Federal State Statistics Service

Table 2

**Monitoring and Evaluating Indicators (partial criteria)
of the agricultural land use sustainability of regions of Ukraine in 2006**

Regions	Indicators												
	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13
AR of Crimea	79.1	11191	12.4	110.8	-4.5	952	16.7	210.5	0.19	1337	80	4.7	43.28
Vinnitsia	90.5	10018	14.2	78.2	-13.2	793	31.3	300.4	0.30	3216	2	8.0	0.03
Volyn	70.3	9069	34.3	97.2	-4.7	773	21.6	323.5	0.36	2720	1	2.8	0.03
Dnipropetrovsk	93.5	9852	6.0	109.9	-11.5	1139	26.1	263.2	0.27	1729	660	39.9	29.57
Donetsk	86.9	10556	7.7	92.8	-11.7	1202	23.7	270.4	0.28	1084	1374	71.5	239.53
Zhytomyr	74.8	6235	35.5	77.7	-13.7	793	26.4	233.7	0.38	2430	23	2.5	0.82
Zakarpattia	47.6	7946	56.5	62.8	-0.1	868	22.1	506.6	0.64	1684	13	5.5	0.32
Zaporizhzhia	88.4	10250	4.3	86.2	-11.0	1091	25.0	177.4	0.17	2052	457	13.9	289.91
Ivano-Frankivsk	72.2	8653	45.6	85.7	-3.7	923	23.3	493.6	0.57	1775	26	22.9	3.68
Kyiv	84.5	9684	23.7	104.6	-15.3	1058	34.9	413.6	0.43	1429	16	7.2	5.64
Kirovohrad	95.9	9722	7.3	53.5	-12.0	819	26.3	211.2	0.22	3567	21	2.5	0.65
Luhansk	72.6	8033	12.8	67.3	-12.8	1022	24.2	159.8	0.20	1173	222	24.0	33.31
Lviv	69.2	8064	31.7	90.8	-5.6	923	22.7	404.5	0.50	1658	180	9.5	10.96
Mykolaiv	91.1	7985	4.9	92.1	-7.4	955	22.6	172.5	0.22	2530	29	2.8	22.09
Odesa	86.5	8515	6.7	94.6	-7.4	966	23.7	202.4	0.24	1946	183	4.2	0.08
Poltava	90.0	10513	9.5	100.0	-14.9	961	27.2	260.4	0.25	3208	5	6.6	0.33
Rivne	72.6	9513	39.7	84.3	-1.9	888	22.3	316.1	0.34	2386	25	2.9	0.52
Sumy	78.9	8913	19.1	69.0	-17.7	857	25.8	198.7	0.22	2354	10	3.3	73.66
Ternopil	84.5	9612	14.4	72.4	-8.3	727	23.3	298.2	0.31	2609	3	3.9	0.01
Kharkiv	83.3	9847	13.2	124.5	-12.5	974	23.3	228.8	0.23	1787	20	10.3	2.89
Kherson	94.0	10480	5.3	67.8	-5.6	800	21.6	196.2	0.19	3102	28	2.3	0.24
Khmelnitskyi	81.3	10449	13.8	80.2	-14.5	792	28.0	248.8	0.24	2642	7	2.8	0.10
Cherkasy	93.8	12059	16.1	89.7	-15.3	846	30.1	378.7	0.31	3742	20	5.0	0.13
Chernivtsi	73.1	10301	31.8	110.0	-3.1	819	22.7	414.6	0.41	2075	7	4.0	0.01
Chernihiv	69.9	7398	22.4	83.6	-23.0	790	29.3	188.1	0.26	3010	29	2.7	0.20

Source: calculated by the authors according to the State Statistics Service of Ukraine

Note: See the list of indicators in Figure 2

is found in the Cherkasy region and the lowest – in the Luhansk region); the volume of agricultural production per person (the largest increase is found in the Cherkasy region and the lowest – in the Donetsk region); supply of housing (the largest increase is found in the Kyiv region and the lowest – in the Mykolaiv region); natural population growth in rural areas (the largest increase is found in the Odesa region and the least – in the Ivano-Frankivsk region).

Negative changes in most regions are found in four partial indicators: the share of arable land in the area of farmland (positive changes took place in Luhansk, Kherson, and Chernivtsi regions; the indicator value did not change in Kyiv and Zaporizhzhia regions); forested areas (positive changes took place in the AR of Crimea, Kyiv and Ivano-Frankivsk regions, and the indicator value did not change in Dnipropetrovsk, Donetsk, Odesa, and Kherson regions); emissions of harmful substances into the air (positive changes took place in Volyn, Dnipropetrovsk, Donetsk, Zaporizhzhia, and Sumy regions); formation of toxic industrial waste (positive changes took place in Zaporizhzhia and Sumy regions).

In terms of inter-regional migration, the positive trend observed in Vinnytsia, Volyn, Zhytomyr, Zakarpattia, Ivano-Frankivsk, Kyiv, Kirovohrad, Lviv, Odesa, Rivne, Sumy, Ternopil, Kherson, Khmelnytskyi, and Chernivtsi regions.

Among post-socialist countries, Ukraine according to the indicator of sustainability ranks the first place according to the indicator calculated by the first method and the third place according to the indicator calculated by the second method (Figure 3).

Ranking of the regions in terms of the share of arable land in the farmland testifies positive changes in the ranking of Volyn, Dnipropetrovsk, Zhytomyr, Ivano-Frankivsk, Odesa, Poltava, and Rivne regions. The positions in the indicator ranking of Luhansk and Chernivtsi regions significantly reduced (Table 4-5).

By the indicator of monetary farmland evaluation improved the position in the ranking of Mykolaiv, Poltava, and Ternopil regions, and deteriorated – in Zakarpattia, Rivne, Khmelnytskyi, and Kherson regions.

In terms of forest areas the least of changes occurred – just in four regions: increased the Kyiv and Kharkiv regions rating, reduced – the Luhansk and Chernihiv regions rating.

Table 3

**Monitoring and Evaluating Indicators (partial criteria)
of the agricultural land use sustainability of regions of Ukraine in 2013**

Regions	Indicators												
	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13
AR of Crimea	80.8	24651	11.5	109.0	0.5	2204	19.0	448.4	0.18	3353	93	5.0	98.90
Vinnytsia	90.8	22067	14.3	86.2	-9.6	2410	34.3	979.3	0.44	11014	1	8.6	109.7
Volyn	73.1	19976	34.6	100.0	-0.3	2008	25.1	765.8	0.38	6097	1	2.4	28.4
Dnipropetrovsk	94.7	21701	6.0	85.7	-6.5	2344	27.6	688.5	0.32	4584	325	35.9	9420.2
Donetsk	87.8	23255	7.7	71.6	-8.7	2581	26.0	645.2	0.28	2635	507	62.1	2006.9
Zhytomyr	81.3	13732	37.7	85.9	-8.9	2420	32.2	652.7	0.48	6643	3	3.0	22.5
Zakarpattia	48.0	17599	56.8	70.3	3.2	2261	24.0	1072.1	0.61	3435	2	5.4	9.3
Zaporizhzhia	88.4	22577	4.4	78.2	-6.2	2052	27.1	447.1	0.20	5349	77	13.0	168.2
Ivano-Frankivsk	76.4	19060	45.6	103.5	-1.5	2560	25.7	1138.0	0.60	4062	1	18.2	121.4
Kyiv	84.6	21331	23.1	153.6	-10.1	2766	44.6	990.1	0.46	3272	3	9.9	85.5
Kirovohrad	96.7	21415	7.7	75.0	-7.7	2251	27.9	641.7	0.30	11561	5	3.0	1582.4
Luhansk	72.1	17694	13.4	59.0	-9.2	2126	26.2	382.5	0.22	2892	142	19.6	667.1
Lviv	71.0	17762	31.8	91.6	-2.5	2421	25.7	869.8	0.49	3470	46	10.9	121.6
Mykolaiv	92.5	17588	5.1	79.8	-3.5	2073	23.5	530.6	0.30	8023	25	3.4	94.5
Odesa	88.8	18757	6.7	129.4	-1.8	1770	27.1	514.8	0.27	4740	81	4.9	21.3
Poltava	92.8	22853	9.9	93.9	-10.6	2404	30.1	866.2	0.38	10952	5	6.1	200.3
Rivne	77.7	20954	40.2	84.9	1.9	2296	24.0	829.3	0.40	5669	7	2.8	78.9
Sumy	80.0	19633	19.3	77.6	-13.5	2220	29.5	651.1	0.33	8271	27	3.3	28.4
Ternopil	85.8	20043	14.6	79.5	-5.9	2048	25.8	836.4	0.42	7488	2	4.2	48.9
Kharkiv	84.2	21688	13.3	110.9	-7.8	2396	26.4	671.5	0.31	5343	13	10.5	65.6
Kherson	93.7	23151	5.3	69.9	-2.8	2037	22.8	554.7	0.24	9123	2	2.6	12.2
Khmelnytskyi	82.0	23016	13.9	87.5	-10.9	2453	31.4	780.2	0.34	8793	1	3.9	53.9
Cherkasy	94.3	26562	16.2	87.6	-10.9	2488	33.4	1142.2	0.43	11821	8	7.2	49.2
Chernivtsi	72.1	22685	31.9	120.3	-0.5	2213	25.6	1007.5	0.44	4973	2	4.8	51.3
Chernihiv	75.0	16295	23.2	81.6	-18.5	2157	38.3	542.9	0.33	8777	17	2.9	21.1

Source: calculated by the authors according to the State Statistics Service of Ukraine

Note: See the list of indicators in Figure 2

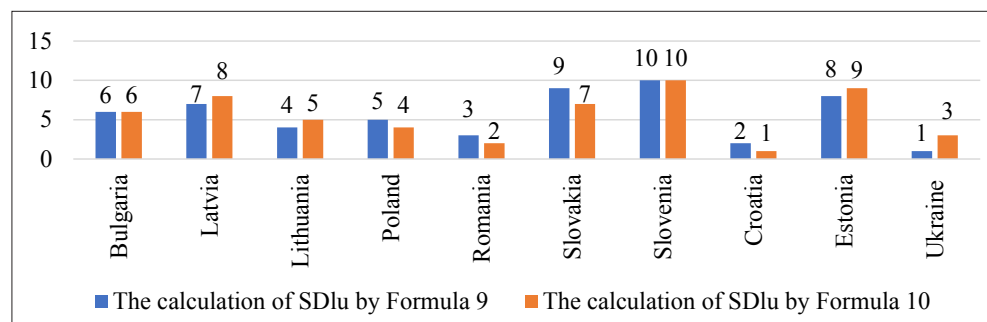


Figure 3. The land use sustainability assessment of the post-socialist countries by the integral indicator in 2013

Source: calculated by the authors according to the State Statistics Service of Ukraine and Federal State Statistics Service

Table 4

Partial rating criteria for sustainability of agricultural land use of Ukraine's regions monitoring and evaluating during 2006

Regions	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13
AR of Crimea	11	2	17	2	5	9	20	18	23	23	16	10	20
Vinnitsia	20	9	13	18	15	17	2	9	11	3	2	14	2
Volyn	4	16	5	7	6	21	19	7	7	7	1	4	2
Dnipropetrovsk	22	10	22	4	10	2	9	12	13	19	21	21	18
Donetsk	17	3	19	9	11	1	13	11	12	25	22	22	22
Zhytomyr	9	25	4	19	16	17	7	15	6	11	11	2	12
Zakarpattia	1	23	1	24	1	13	18	1	1	20	7	12	8
Zaporizhzhia	18	8	25	13	9	3	11	22	25	15	20	18	23
Ivano-Frankivsk	5	18	2	14	4	11	14	2	2	18	13	19	14
Kyiv	15	13	8	5	19	4	1	4	4	22	8	13	15
Kirovohrad	25	12	20	25	12	16	8	17	20	2	10	2	11
Luhansk	7	21	16	23	14	5	12	24	22	24	19	20	19
Lviv	2	20	7	11	6	10	15	5	3	21	17	15	16
Mykolaiv	21	22	24	10	7	8	16	23	21	10	15	4	17
Odesa	16	19	21	8	7	7	13	19	17	16	18	9	3
Poltava	19	4	18	6	18	10	6	13	15	4	4	17	9
Rivne	6	15	3	15	2	12	17	8	8	12	12	5	10
Sumy	10	17	10	21	20	14	10	20	19	13	6	6	21
Ternopil	14	14	12	20	8	22	14	10	10	9	3	7	1
Kharkiv	13	11	15	1	13	6	14	16	18	17	9	16	13
Kherson	24	5	23	22	6	19	19	21	24	5	14	1	7
Khmelnyskyi	12	6	14	17	17	18	5	14	16	8	5	4	4
Cherkasy	23	1	11	12	19	15	3	6	9	1	9	11	5
Chernivtsi	8	7	6	3	3	16	15	3	5	14	5	8	1
Chernihiv	3	24	9	16	21	20	4	21	14	6	15	3	6

Source: calculated by the authors

Note: See the list of indicators in Figure 2

Contrary, the significant changes took place in the ranking in terms of interregional migration: most grown ranking in Ivano-Frankivsk, Zhytomyr, and Khmelnytskyi regions; Dnipropetrovsk, Donetsk, and Mykolaiv regions significantly reduced in terms of the ranking position.

In terms of natural population growth in rural areas, the most of the regions worsened their position in the ranking, the highest and lowest ranking, increased and reduced by five positions respectively in Volyn and Khmelnytskyi regions.

The biggest difference in the change of rating positions held in terms of average nominal wages. By 18 points dropped Zaporizhzhia and Odesa regions ranking, by 13 points increased Khmelnytskyi region ranking. Positions of Zakarpattia, Rivne, Ternopil, and Chernivtsi regions remained unchanged.

According to the rating of the housing supply, the position of the Mykolaiv region has increased significantly and the positions of Zhytomyr, Odesa, Sumy, and Chernihiv regions reduced a little.

Table 5

Partial rating criteria for sustainability of agricultural land use of Ukraine's regions monitoring and evaluating during 2013

Regions	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	1.10	1.11	1.12	1.13
AR of Crimea	10	2	17	5	6	17	25	23	25	22	14	13	16
Vinnytsia	19	9	13	12	18	8	3	6	7	3	1	17	17
Volyn	5	16	5	7	1	24	20	12	11	12	1	1	6
Dnipropetrovsk	24	10	22	14	12	11	10	13	16	18	16	24	25
Donetsk	16	3	19	22	15	2	15	17	20	25	17	25	24
Zhytomyr	11	25	4	13	16	7	5	15	4	11	3	5	5
Zakarpattia	1	22	1	23	1	13	21	3	1	21	2	14	1
Zaporizhzhia	17	8	25	19	11	21	12	24	24	14	12	21	20
Ivano-Frankivsk	7	18	2	6	4	3	18	2	2	19	1	22	18
Kyiv	14	13	9	1	19	1	1	5	5	23	3	18	14
Kirovohrad	25	12	20	21	13	14	9	18	19	2	4	6	23
Luhansk	3	21	15	25	17	19	14	25	23	24	15	23	22
Lviv	2	20	7	9	7	6	17	7	3	20	11	20	19
Mykolaiv	20	23	24	17	9	20	23	21	18	9	9	8	15
Odesa	18	19	21	2	5	25	11	22	21	17	13	12	4
Poltava	21	6	18	8	20	9	7	8	12	4	4	15	21
Rivne	8	14	3	15	3	12	22	10	10	13	5	3	13
Sumy	9	17	10	20	23	15	8	16	15	8	10	7	7
Ternopil	15	15	12	18	10	22	16	9	9	10	2	10	8
Kharkiv	13	11	16	4	14	10	13	14	17	15	7	19	12
Kherson	22	4	23	24	8	23	24	19	22	5	2	2	2
Khmelnyskyi	12	5	14	11	22	5	6	11	13	6	1	9	11
Cherkasy	23	1	11	10	21	4	4	1	8	1	6	16	9
Chernivtsi	4	7	6	3	2	16	19	4	6	16	2	11	10
Chernihiv	6	24	8	16	24	18	2	20	14	7	8	4	3

Source: calculated by the author

Note: See the list of indicators in Figure 2

In terms of agricultural production per 100 hectares of farmland, ranking positions of Crimea and Donetsk region increased the most; thus Poltava and Cherkasy regions significantly lost in the ranking. In terms of land return, the rating of the Donetsk region increased by eight positions, while Vinnytsia and Sumy regions lost four positions in the ranking. By indicator of agricultural production volume per capita, the rating equally decreased and increased (by five positions), respectively, in Sumy and Volyn regions.

The worst situation in the regions is in terms of indicator of polluted water volumes into surface waters – in all regions (except Volyn and Poltava regions where the rating has not changed) positions in the ranking declined. Contrary, in terms of emissions into the atmosphere, almost all regions rating improved (except Volyn, Poltava, and Rivne regions). In terms of the formation of toxic industrial waste Vinnytsia (15 points), Kirovohrad (12 points), and Poltava (12 points) regions significantly improved its positions; 14 points down the Sumy region rating.

Calculation of total rating assessment is proposed to be done according to previously created methodology (UNU, 2017). According to the calculations in 2013, the first three places in the ranking respectively received Zakarpattia, Volyn, Ivano-Frankivsk regions (Table 6).

Thus, the first two positions in the ranking of the regions did not change and, in the Ivano-Frankivsk region, the rating increased by five positions.

In Zakarpattia region, partial indexes are the highest by five of the thirteen indicators: the share of arable land in farmland, forest area, the rate of natural population growth, land return, and the formation of industrial toxic waste. In the Volyn (2nd place), Kyiv (9th place), and Cherkasy (10th place) regions, the partial indicators are the highest by the three indicators. In Ivano-Frankivsk region, which in the ranking took the third place, 9 of 13 partial indicators have the values above 0,6.

The last three places in the ranking took Donetsk, Zaporizhzhia, and Luhansk regions. The main reason for such low indicators, the common for all these regions, – is the high volumes of polluted water emissions into surface waters and emissions of harmful substances into the atmosphere. In addition, in Zaporizhzhia region, there is the lowest forest area and land return, in Luhansk region – the lowest partial indices of agricultural production per 100 hectares volume and inter-regional migration; in Donetsk region – the lowest volume of agricultural production per one person. In general, the gap between the highest and the lowest generalized indicator for the agricultural land use sustainability development assess was 0,403 (2,2 times).

Table 6

The integral indicator for evaluation of agricultural land use sustainability in the regions of Ukraine

Regions	2006		2013		2013 against 2006, +-	
	I_i	Place by the rating	I_i	Place by the rating	I_i	Place by the rating
AR of Crimea	0.423	21	0.413	21	-0.010	0
Vinnitsia	0.527	7	0.594	5	0.067	-2
Volyn	0.630	2	0.700	2	0.070	0
Dnipropetrovsk	0.422	22	0.391	22	-0.031	0
Donetsk	0.407	23	0.374	23	-0.033	0
Zhytomyr	0.501	10	0.570	8	0.069	-2
Zakarpattia	0.654	1	0.742	1	0.088	0
Zaporizhzhia	0.395	24	0.369	24	-0.026	0
Ivano-Frankivsk	0.525	8	0.619	3	0.094	-5
Kyiv	0.520	9	0.569	9	0.049	0
Kirovohrad	0.462	15	0.495	16	0.033	1
Luhansk	0.360	25	0.339	25	-0.021	0
Lviv	0.489	13	0.480	17	-0.009	4
Mykolaiv	0.437	19	0.433	20	-0.004	1
Odesa	0.431	20	0.451	18	0.020	-2
Poltava	0.485	14	0.514	14	0.029	0
Rivne	0.531	6	0.584	7	0.053	1
Sumy	0.451	17	0.505	15	0.054	-2
Ternopil	0.553	4	0.520	13	-0.033	9
Kharkiv	0.437	18	0.448	19	0.011	1
Kherson	0.455	16	0.548	11	0.093	-5
Khmelnyskyi	0.496	11	0.588	6	0.092	-5
Cherkasy	0.532	5	0.568	10	0.036	5
Chernivtsi	0.619	3	0.619	4	0.000	1
Chernihiv	0.491	12	0.533	12	0.042	0

Source: calculated by the authors

5. Conclusions

1. The proposed methodology is developed to rank the stability of the agricultural land use and includes the set of the most important partial criteria.

2. It is found that at the present time, there are many models of the indicators systems, the common element of which is the availability of simple, linking indicators and indicators that point to the distance to the target. However, the anticipated indicators are largely of the controversial nature and they have not received general recognition in the world.

3. The expediency is proved and two methodological approaches for the agricultural land use stability assessment have been made up: the construction of the aggregate indicator, with the help of which it is possible to judge the degree of the land use sustainability at the macro level; the construction of the integral indicator to compare the countries' land use sustainability.

4. The method for determining the aggregate indicator has been developed and the method for determining the integral indicator of the agricultural land use

sustainability that takes into account environmental, economic and social aspects of the process and its characteristics in the countries of the post-socialist camp has been improved.

5. According to the given methods, it has been proved that agricultural land use in the countries of the post-socialist camp has a positive dynamics, but the sustainability indicators for all indicators have not achieved yet.

6. In accordance with settlements for solving the problems in the area of agricultural land use, the state should focus on less developed regions where environmental situation is difficult (Crimea, Dnipropetrovsk, Donetsk, Ivano-Frankivsk, and Luhansk regions), productivity (Crimea, Zaporizhzhia, Luhansk, Zakarpattia, and Kyiv regions) and land return (Crimea, Zaporizhzhia, Luhansk, and Kherson regions) reduced, slowed population growth (Poltava, Sumy, Khmelnytskyi, Cherkasy, and Chernihiv regions) and have an excessive migration (Zakarpattia, Kirovohrad, Luhansk, and Kherson regions).

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PUBLIC-PRIVATE PARTNERSHIP AS A MECHANISM FOR FINANCING INFRASTRUCTURE MODERNIZATION

Olha Kravchenko¹

Abstract. The article is devoted to the study of the possibilities of attracting private business for financing state-owned infrastructural facilities. The *purpose* of the paper is to study the practice of attracting private business for the modernization of infrastructure, including railway and the development of an approach to the formation of a variety of infrastructural objects transferred to the public-private partnership, based on an assessment of the possible reduction of their potential. *Methodology.* The study is based on an empirical analysis of data on the practice of financing infrastructure modernization, as well as a SWOT analysis of the prospects for the development of European railways. *Results* of the research showed that the public-private partnership has significant advantages over the budgetary one due to not only reducing the financial burden on the state budget but also increasing the efficiency of using state-owned facilities. In the field of railway transport, the volume of public-private partnership and the number of projects being implemented is insignificant due to significant state interference in its activities. SWOT analysis showed that railways have significant development potential, and its further increase will be achieved not through expansion of the network, but its modernization and innovative development. The dangers of the development of railways are associated with possible ineffective state policy in the field of railway transport. However, the complete transfer of the rail infrastructure to private business is not expedient since it is of strategic importance. The determination of the list of facilities for transfer to public-private partnership should be based on an analysis of the degree of their interest in private business, the need for their modernization and the possibilities for its financing. These objects are sections of the railway network included in transport corridors, as well as providing access to seaports. At the same time, the criterion of the first priority of the transfer of objects for the public-private partnership should be based on an assessment of the change in their production and economic potential when postponing modernization. *Value/originality.* The implementation of the proposed approach to the selection of infrastructure facilities for public-private partnership will allow not only carrying out technical and technological renovation of the railway infrastructure, preserving the integrity of the strategic transport network, but also minimizing possible economic and social losses due to underfunding of its innovative development.

Key words: infrastructure, modernization, financing, public-private partnership, rail transport.

JEL Classification: G32, H54, R42, L92

1. Introduction

In the second half of the XX century, the process of cardinal changes in all spheres of the social and economic life of both developed and developing countries began. This was the result of the formation of a new paradigm of economic development, the objective consequence of which was the change in key determinants of the management of the national economies. The structural changes that have taken place also touched on spheres that were traditionally considered to be facilities of the direct state administration. The integration processes taking place on the Eurasian continent necessitate the formation of a developed infrastructure that must be not only innovative but also interconnected, i.e. form a single network and be interoperable to ensure the

free movement of resources, goods, and services both within the state and with foreign partners. According to the Organization for Economic Cooperation and Development, improving the quality of infrastructure also stimulates productivity growth (Cova, Pagano, Notarpietro, Pisani, 2017). This necessitates a significant investment in infrastructure, the development of which should be spent up to 4.1% of GDP (McKinsey Global Institute, 2013). The experts of the McKinsey Global Institute note that in order to ensure the predicted growth of world GDP, the investment in infrastructure should reach 57 trillion USD up to 2030. It is obvious that it is virtually impossible for governments of even developed countries to finance the necessary capital investments at the expense of the state budget

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(the infrastructure of the EU countries is financed at 84%, other developed countries – 91% of the required level).

At the same time, such investments should be considered as an indispensable condition for the development of the national and global economy, the failure of which leads to negative consequences for both the state and private business. The experts note that in the conditions of the budget deficits, the state will stimulate the emergence of new interesting investment opportunities (Ernest & Young (CIS), 2014). Thus, the problem of the formation of sufficient financial resources for the development of infrastructure is relevant for theoretical and applied research. To solve this problem, the practice of attracting private capital for modernizing the infrastructure by the example of the railway was explored, and an approach was proposed to the formation of a number of the infrastructural facilities transferred for modernization and further exploitation to private structures, based on an assessment of the possible reduction of their potential in the event that capital investments in them are postponed due to the lack of available financial resources.

2. Models for financing infrastructure development

As already noted, the state funds for the development of infrastructure are not enough now. This determines the need to attract the private business to finance both the modernization of existing facilities and the creation of new ones. One of the most promising forms of such cooperation between the state and private business is now recognized as Public-Private Partnership (PPP). According to the World Bank, PPP is used in more than 134 countries; 15-20% of all investments in infrastructure are financed at their expense (World Bank Group, 2015a).

Modern PPP theory develops on the basis of liberal-conservative doctrines, which are the basis of the institutional economic theory. In modern terms, PPP is viewed as an institutional and organizational alliance between the state and business in order to implement the national and international, large-scale and local, but always socially significant projects in a wide range of activities (Varnavsky, 2005). At the same time, there is a departure from the traditional position according to which PPP is possible only in industries, in which the transfer of state property to private ownership is prohibited. The adaptive approach, which predetermines the possibility of PPP in any spheres, where such interaction will be effective and mutually beneficial, is becoming more widespread.

PPP is recognized as the most progressive company of the partnership between the state and private business. This is due to the fact that such a partnership gives significant advantages over the budgetary one due to: (1) reducing the financial burden on the state budget,

increasing the efficiency of using state-owned facilities, improving the quality of service; (2) of a long-term nature with clearly defined time frames, which allows not only short-term and medium-term planning but also strategic planning. In addition, the widespread introduction of concessions makes it possible to expand the opportunities for attracting the private investments in industries where privatization is impossible, to modernize them without losing control over facilities of strategic importance for the state. The consequence is an increase in the frequency of use of PPP mechanisms in developing countries (Colverson, Perera, 2011).

In developed countries, there is a considerable positive experience in creating such temporary alliances for the implementation of the specific projects. The World Bank identifies three main types of PPP: ROT (Rehabilitate–Operate–Transfer), RLT (Rehabilitate–Lease–Transfer), BROT (Build–Rehabilitate–Operate–Transfer) (World Bank Group, 2015a). These types of PPP oblige concessionaires to perform certain works to modernize (improve) the property received (transferred) under the contract, while the cost of the works performed is not refundable.

In the scientific literature, 5 main types of concession contracts are considered (Hanaoka, Perez Palapus, 2012; Kilvington, 1996; etc.).

BOT “Build–Operate–Transfer” (or DBOT “Design–Build–Operate–Transfer”) is a classical concession model that underpins PPP legislation in many European countries. The conclusion of such a contract assumes that the concessionaire performs the entire complex of works on the construction (reconstruction) of the facility, exploits it, and receives from it income within a certain (fixed) period, after which the facility is transferred to a public partner (state, authorized state bodies, etc.);

BTO “Build–Transfer–Operate” involves financing the entire complex of works on the construction (reconstruction) of the facility by the private investors and transferring it to the ownership of a public partner immediately after the construction is completed; concessionaires receive this facility for the further exploitation and income generation.

BOO “Built–Own–Operate” (or DBOO “Design–Built–Own–Operate”). Private investors carry out the construction (reconstruction) of the facility, and then acquire ownership of it, on the basis of which it is used for a period agreed with the public partner.

BOOT “Built–Own–Operate–Transfer” (or DBOOT “Design–Built–Own–Operate–Transfer”). Private investors carry out the construction (reconstruction) of the property, acquire ownership of it, and operate for a certain period of time, after which the facility is transferred to the ownership of a public partner.

BBO “Buy–Build–Operate” (or LDO “Lease–Develop–Operate”, WAA “Wrap–Around–Addition”). The peculiarity of these concession models is that they

are a kind of transfer of already existing assets to the ownership of the private partners who must modernize these facilities without taking any obligations on the terms of its transfer to a public partner.

3. Railways as a facility of public-private partnerships

When formulating PPP conditions and, as a consequence, the choice of the concession model, there is always a problem of harmonizing the social and economic efficiency of its implementation, which is exacerbated by the analysis of the infrastructure facilities of strategic importance. This is also true for rail transport, which is now returning its significance as a 'locomotive of development' not only for developing economies but also for developed ones, which also has a great social significance. At the same time, the technological features of railways determine their monopoly position not only as one of the most accessible modes of transport but also the main carrier of a certain range of goods, primarily large volumes of bulk materials from the centres of their production (mining and agricultural products) to the place of their further processing. Effective rail transport can become an important catalyst for economic growth and development, stimulate trade, link production sites to the regional and international markets, promote national and cross-border integration of regions and facilitate access to the labour market, education and health services. In addition, rail transportation is more energy efficient than automobile or aviation, which is especially important in the face of rising energy shortages.

It is expected that € 1.8 billion will be directed to the development of the strategic sections of the railway network that provide the 'highest EU added-value and impact' (European Commission, 2017). However, the centralized financing of the infrastructure both at the EU level and the governments of individual states is not effective enough, because (1) the main criterion for selecting projects is not the appropriateness of their implementation but the necessary amount of financing that is the main is not the strategic aspect of the railway network development, short-term effect; (2) financing of short-term projects aimed at maintaining the infrastructure in working order, rather than its innovative development, is a priority. In addition, the consequence of the direct subsidization of rail transport is in a sense dependent behaviour that negatively affects the efficiency of its operation.

At the same time, World Bank experts note that attracting private capital, including through PPP on railways, will improve the efficiency of railways through the introduction of modern and clean technologies (World Bank Group, 2017). Effective joint use of the railway infrastructure, modernized as a result of the implementation of the RRP, will help to increase not

only the incomes of the state and private investors but also the attractiveness of the capital investment in the development of the railways.

Now, in terms of the volume of PPP and the number of projects being implemented, rail transport is at the 3rd (penultimate) position among other modes of transport (Figure 1). In 2015, according to the World Bank, 5.8 billion USD was raised for the development of railways through the PPP mechanism (World Bank Group 2015b). Despite the strengthening of the position of railway transport, its attractiveness for private business has declined. So, during the period of 2010–2014, annually, investments in its development with the participation of private business averaged to 8.6 billion USD, that is, in 2015 they were less than the average annual level by 33%. At the same time, the total volume of such investments in the development of transport infrastructure increased by 53% compared to the average level for the previous five years. Of the seven projects concluded on the basis of PPP, only one is connected with the main railways and the rest – with the development of the subway.

This situation is the consequence of (1) the great social significance of rail transport, its role in ensuring the national security of the state and, as a result, significant state intervention in production and economic activity, and (2) the fact that the maximization of profits from its use cannot be the basic principle of development (M. Sussman, 2013). This determines the need to tighten the terms of the concession agreements related to the development of the railway infrastructure.

At the same time, SWOT analysis, conducted for the European railways (Table 1), demonstrates the high potential of rail transportation. At the same time, the potential will increase substantially in the conditions of the 'industrial renaissance', when the need for regular and stable transportation of large volumes of goods to medium and long distances increases. The increase in capacity (network capacity and transport capacity) will be achieved through the non-expansion of the network (developed European countries already have well-developed rail networks), and its modernization and innovative development.

As can be seen from Table 1, the dangers of the development of rail transport are mainly related, on the one hand, to the possible irrational state policy in the field of railway transport, and on the other hand, to the ineffectiveness of the market mechanism. The experts of the International Bank for Reconstruction and Development indicate that the success of the implementation of PPP projects is largely determined by government support, developed legal framework, a correct assessment of the ratio of benefits and costs, as well as the distribution of risks (IBRD, 2012). Thus, these problems can be minimized by implementing a balanced state strategy to support the innovative development of the transport infrastructure.

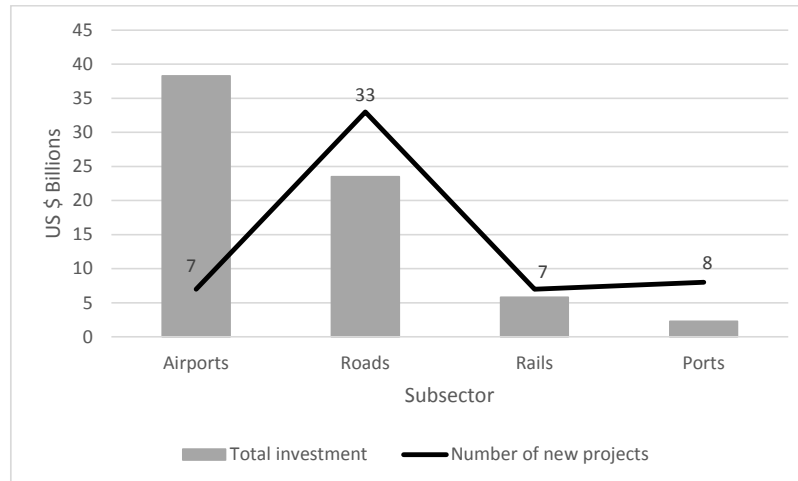


Figure 1. Investments in transport by subsectors

Source: built by the author based on World Bank Group, 2015b

Table 1

SWOT Matrix for Railways

Strengths	Weaknesses
1. A fairly stable customer base. 2. The possibility of year-round transportation; independence from weather conditions. 3. The possibility of carrying out mass transportations for long and medium distances. 4. Large load capacity of rolling stock. 5. The possibility of transportation in specialized cars. 6. A fairly stable customer base. 7. Traction unit has high reliability and durability. 8. High traffic safety. 9. High environmental friendliness of transport.	1. Binding to the network of railways, the construction of which is very expensive. 2. The high cost of initial-final operations (stations and devices in places of loading and unloading). 3. The high cost of maintaining the infrastructure. 4. Long payback periods for investments in infrastructure and rolling stock. 5. The necessity of subsidizing passenger transportation. 6. High level of state intervention in financial and production activities.
Opportunities	Threats
1. Creation of a single transcontinental network Europe-Asia. 2. Internationalization of rail transport. 3. Realization of the policy of 'industrial renaissance' in EU countries; high rates of development of the Asian economies. 4. Possibilities for increasing the volume of transport. 5. Development of multimodal and intermodal transport. 6. Growth in demand for high-speed passenger transportation. 7. The possibility of an innovative leap in railway technology over the next 3-5 years.	1. The difficulties of ensuring the full interoperability of railway networks of different countries. 2. Imbalance in supply and demand for services in the industry. 3. Reducing the competitiveness of rail transport. 4. Tougher state regulation of rail transport. 5. Unreasonable pricing policy of railway companies.

Source: developed by the author using data from (Drexler T., 2012; European Commission, 2008; PwC, 2015; etc.)

Since the railway infrastructure is of strategic importance, its full transfer to private business is not expedient. This can be explained by the fact that (a) the state may for some time lose control over the strategic facility; (b) private business may violate the terms of the contract, which will result in not becoming an innovative infrastructure development, but its deterioration. Therefore, there is a set of problems associated with the transfer of facilities (sections of the railway network) for PPP. Let's consider some of them.

Problem 1. Define the list of PPP facilities. Such facilities must satisfy the following conditions:

(1) the facility should be of interest to private business, that is, the expected benefits of operating the facility should exceed the costs of its modernization, that is:

$$\sum_{t=t_0}^T \frac{P_k(t)}{(1+d)^t} \geq \sum_{t=0}^{t_f} \frac{KI(t)}{(1+d)^t},$$

where $t(t = \overline{0, T})$ – years of the implementation of the concession agreement; t_f – year of end of financing of modernization of the concession facility; t_0 – the year from which the concessionaires will profit from the operation of the facility; $P_k(t)$ – profit planned for the year t ; $KI(t)$ – capital investments provided for by the concession agreement; d – the price of the capital;

(2) there is an urgent need to modernize a facility or section of the railway network, given that there is an acute shortage of financial resources for the implementation of such a project, that is:

$$FR_n \geq FP,$$

where FR_n – the amount of financial resources required to upgrade an infrastructure facility or a network section; FP – financial capabilities of the state budget.

The analysis showed that the sites that meet these conditions are sections of the railway network included in transport corridors, as well as providing access to seaports. In this case, the following will be provided:

firstly, the necessary balance between the economic interests of investors (concessionaires) and the state since these sections of the network are the most in demand in the process of transport, especially multimodal and intermodal;

secondly, the preservation and development of the capacity and transport capacity of the national railway network, the increase of its interoperability with the pan-European (for example, on Ukraine's railway transport, equipment and technologies of the third generation are used, and in European countries 4-5 generations, which creates certain technological difficulties when carrying out transit and international transport);

thirdly, the promotion of the social development of the regions covered by the concession, by saving and creating new jobs.

Problem 2. The criterion for the first priority of the transfer of facilities for PPP. The selection of the facilities to be transferred to the PPP should include the following stages: analysis of the level of physical and moral depreciation of individual facilities or sections of the railway network; assessment of the financial needs for their modernization; analysis of the economic and social (positive and negative) consequences of the transfer of a particular facility in the PPP. Such a criterion should be based on an assessment of how its production and economic potential will change, provided that modernization is postponed:

$$C_i = \frac{P_c - P_a}{KI},$$

where P_c – the potential of the railway infrastructure facility, provided that capital investments in its modernization are carried out this year; P_a – the potential of the railway infrastructure facility, provided that capital investments are postponed; KI – the amount of necessary investment.

Then for the transfer to the concession in the first place should be offered facilities for which the greatest

reduction in potential will be obtained. This will allow not only carrying out technical and technological renovation of the railway infrastructure but also minimizing possible economic and social losses due to underfunding of its innovative development and maintaining the integrity of the strategic transport network.

4. Conclusions

The conducted research has shown that despite significant positive experience and significant advantages of PPP for financing the modernization and development of the railway infrastructure, it is practically not used. This is due to the low investment attractiveness of railway transport due to the high cost of introducing innovations and significant payback periods of investments, and rather strict government regulation of its activities. The SWOT analysis showed that rail transportation not only retains its importance but also has significant growth potential in the conditions of "industrial renaissance" in European countries. At the same time, the complete transfer of the railway infrastructure to private business is not expedient since it is of strategic importance. Therefore, the facilities transferred to the PPP should be both interesting for private business and for the urgent need of modernization, which the state cannot fully finance in the near future. The main criterion determining the possibility of transferring the facility of the railway network to the RRP should be an assessment of the change in its production and economic potential in the event that financing for modernization is delayed. It is determined that in order to maintain the technical and technological integrity of the railway network, in the first place, it is necessary to transfer to PPP the facilities, underfinancing of the modernization of which will lead to a significant reduction in their production and economic potential. At the same time, the problem of forming a set of the indicators remains unresolved, which will most fully reflect the change in both the production-economic and social potential of the railway infrastructure facility in the implementation of modernization, including as a result of PPP.

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INTELLECTUALLY-INNOVATIVE CLUSTERS AS THE BASIS OF INDUSTRIAL POTENTIAL DEVELOPMENT

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Abstract. The *purpose* of the paper is the formation of a new type of industrial clusters as a modern basis for the spatial development of industrial potential. *Methodology.* The methodological basis of the article is methods of scientific cognition, which allow revealing the essence of the clustering process. In particular, the following methods are used: fuzzy cluster analysis – for the construction of intellectual-innovative industrial clusters; grouping – for the determination of types of intellectually-innovative industrial clusters; systematization – for studying foreign experience; abstraction – for the formation of theoretical generalization and conclusions. *Results.* Foreign experience of effective cluster structures creation in the industrial sector of the economy is analysed and the necessity of establishing cooperation between education, science, and business structures is proved. By means of the indistinct S-averages method, taking into account indicators of development of industrial potential intellectual and innovative components, measures matrices of Ukraine's administrative-territorial units belonging to four clusters have been developed, each of the clusters differs by the development level of corresponding component (very high, high, average, and low). On the basis of the achieved results, the conclusion is made that it is necessary to create intellectually-innovative industrial clusters in which administrative-territorial units with the high development level of intellectual potential will act as a catalyst of innovative development of the industrial potential. The role of the state is defined as an activator of establishing cooperation between education, science, and business structures. It was offered to work out the conception of cluster policy and distinguish pilot projects in the industrial sector of the economy taking into account modern directions of the global economic development. Global practical experience of stimulation of industrial potential innovative development is generalized on a cluster basis. With the aim to institutionalize the activity of intellectually-innovative industrial clusters creation, it is offered to use a cluster passport with the introduction of such sections as innovativeness of a project and relevance to the strategic targets of the state economic development. *Practical implications.* Practical implications are related to the possibility of establishing an effective dialogue not only between business structures but also with educational establishments, scientific institutions, and government bodies. *Value/originality* lies in the development of a typology of industrial clusters taking into account indicators of development of intellectual and innovative components and the formation on this basis of the cluster concept of the development of industrial potential.

Key words: cluster, innovations, innovative development, industrial potential, intellectual component.

JEL Classification: O31, F63

1. Introduction

Under the condition of the current situation of protracted financial-economic crisis in Ukraine, cluster organization of industrial production is considered to be a stimulator of transition to the innovative development model. The cluster approach to the industrial potential development will promote the increase of its competitiveness due to establishing an

effective dialogue not only between business structures but also with educational establishments, scientific institutions, and government bodies. We should note that, according to the research conducted by the international agency Bloomberg in 2016, Ukraine is in the list of top-50 countries of the world by the innovative index value and on the 5th place by the level of educational component development (Bloomberg

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Innovation Index, 2016). Creation of Single European scientific space still remains an urgent issue nowadays, which will allow creating favourable conditions to carry out scientific researches and increase the effectiveness of scientific developments.

Creation of intellectually-innovative industrial clusters in Ukraine will get the knowledge resource closer to enterprise structures, make the transfer of knowledge faster, and provide a gradual transition to the development of industrial potential on the innovative basis. To achieve this purpose, there are the following tasks: to study foreign experience of effective cluster structures creation in the industrial sector of the economy; to carry out clusterization of administrative-territorial units of Ukraine by the indexes of development of industrial potential intellectual and innovative components; to work out the conceptual principles of intellectually-innovative industrial clusters creation.

2. Foreign experience of cluster creation

It should be noted that A. Marshall was among the first who defined advantages of establishing network collaboration between economic agents, examining the industrial regions of Great Britain (industrial agglomerations) (2008). Ideas as to advantages of network collaboration became the basis for cluster theory development. According to M. Porter, a cluster unites not only interdependent companies but also scientific research institutions, higher educational establishments, and other organizations that complement each other (1990).

In European countries, cluster development of industrial potential is one of the conditions of competitiveness growth of national economy. In particular, Strategy of industry competitiveness growth on cluster basis was worked out in Slovenia. The core documents of cluster policy development in the mentioned countries are the European Regional Charter and the Cluster Initiative Greenbook.

Successful operation of industrial clusters is determined by maintaining a stimulation policy aimed at establishing cooperation between research institutions, universities, and industrial sector. The example of such successful collaboration is Silicon Valley in the USA, establishing partnership relations between Stanford University and hi-tech enterprises in the field of electronics became the basis for its development.

As a result, the level of economic development of the region rose considerably, new workplaces appeared, and the level of innovativeness of industrial projects increased. The launch of the plant producing electronic computing machines in 1956 became a significant result of the introduction of scientific developments in industrial production. Today, clusterization is the basis for defining priorities of innovative policy and working out investment-innovative programs in the region.

Thus, the intellectual potential is the basis for innovative development of the industrial potential, and its accumulation will become the key factor for the transition to the innovative economy. Therefore, higher educational establishments and scientific research institutions must occupy a central position in modern innovative clusters. In this case, the role of academic establishments is to train proper specialists, and upgrade the employees' qualification, the task of scientific institutions is to carry out scientific researches focused on market needs. Taking into account foreign experience, colleges must be located near the sites of industrial enterprises in order to provide practical part of the educational process, and universities location should be in the centre of development of a certain type of industrial activity in order to ensure the solving of current and strategic development issues (Druhov, 2012,). There is no single opinion as to scientific research institutions because scientific structural units of universities can carry out scientific researches. The growth of their activity will lead to developing a new type of research universities able to become centres of cluster formation.

In E. Mansfield's opinion, scientific researches of the applied nature are the basis of successful economic development of a country, and improvement of national economic competitiveness (1998). H. Etzkowitz and L. Leydesdorff consider the development of "triple spiral" between a production sector (enterprise structures), intellectual infrastructure (research institutions, universities), and management bodies (state authorities, local self-government authorities) to be the basis for the economic development of innovative type (2000). We agree that establishing effective ties between the mentioned participants will allow setting up a creative environment in the country capable of generating new knowledge with the aim of their practical application in the industrial economic sector.

3. Clusterization of administrative-territorial units of Ukraine

According to Ukrainian scientists, cluster approach is an effective means of transition of industrial potential onto innovative development basis (Zhalila, 2014; Kulishov, 2013; Khmara, 2013). In addition, an innovative cluster gets a boost for the development due to the high innovative ability of cluster's participants (Mazniev, 2013). L. I. Fedulova points out that development of clusterization will promote technological development of industrial potential that will assure organization of much higher technological approaches in the national economy (2010).

Main obstacles, according to V. Heiets, on the way to the industrial development on the innovative basis are the following: lack of financing of fundamental

and applied researches, shortage of skilled workforce, deterioration of investment climate in the country, low level of innovative infrastructure development, political and economic instability (2015). In addition, the scientist proves the necessity of establishing cooperation between the state, science, education, and enterprise structures with the aim to eliminate the development of negative tendencies.

In order to determine spatial features of the development of intellectual and innovative components, we suggest using indicators provided in the work (Kuzmin, Shpak & Stanasiuk, 2017).

The system of indicators, which characterizes cluster's constituents, includes:

for evaluation of the development level of educational constituent:

- the share of students of higher educational establishments of I-IV levels of accreditation in the number of population, %;
- number of higher educational establishments of I-IV levels of accreditation, units;

for evaluation of the development level of scientific constituent:

- ratio of researchers in the number of economically active population, %;
- number of scientific organizations, units;
- the share of scientific and scientific-technical works in gross regional product, %;

for evaluation of the development level of innovative constituent:

- the share of industrial enterprises that introduce innovations, %;
- the share of industrial enterprises that introduce market innovations, %;
- technological innovativeness of industrial enterprises, units per 1 industrial enterprise;
- product innovativeness of industrial enterprises, units per 1 industrial enterprise;
- a number of industrial enterprises that supplied innovative products outside Ukraine, units.

The system of indicators was worked out taking into account possibilities of getting relevant statistic data from the website of the State Statistics Service of Ukraine.

The research was carried out in 25 administrative-territorial units of Ukraine by means of the indistinct S-averages method that provides the best results under the condition of the vagueness of information.

Regarding that S value is determined by an expert method; we suggest distinguishing four clusters regarding the development levels of certain constituents (very high, high, average, and low).

Each administrative territorial unit, to a certain extent (from 0 to 1), belongs to a certain cluster. None of the clusters can contain all elements or, vice versa, be empty.

The following matrix, built with the formula (Taraskina, 2013), is used to define the final result:

$$M = \begin{bmatrix} m_{11} & m_{12} & \dots & m_{1l} \\ m_{21} & m_{22} & \dots & m_{2l} \\ \dots & \dots & \dots & \dots \\ m_{cl} & m_{c2} & \dots & m_{cl} \end{bmatrix}, \quad (1)$$

where: M – a matrix of the degree of belonging, m_{ij} – degree of belonging of j administrative-territorial unit to i cluster.

The results of non-distinct clusterization of administrative-territorial units of Ukraine by the indexes of intellectual constituent development are shown in Table 1.

Taking into account the indexes of development of academic and scientific constituents, the biggest cluster is the third one, which comprises 16 administrative-territorial units. Administrative-territorial units belonging to the first cluster (Dnipropetrovsk, Lviv, Odesa, and Kharkiv regions) concentrate basic relative share of academic and scientific establishments of Ukraine.

However, the inner structure of the cluster is too complex because the degree of belonging of regions ranges from 0,35 (Kharkiv region) to 0,90 (Dnipropetrovsk region) that explains the high degree of variation of other indexes.

The same situation is observed in the fourth cluster, which consists of Zaporizhzhia, Mykolaiv, Sumy, and Chernivtsi regions that are characterized by far lower indexes of intellectual constituent development.

The most favourable conditions for accumulation of the intellectual potential are in the city of Kyiv, which is the leader by indexes of development of both academic and scientific constituents.

Specific indexes were used to study the innovative constituent that allowed analysing the product, technological and market innovativeness of industrial enterprises, as well as the level of innovations transfer (Table 2).

It's worth mentioning that the first cluster is the biggest by size on a quantitative criterion and administrative-territorial units that it consists of concentrate the bulk of innovatively active industrial enterprises.

Administrative-territorial units characterized by the high level of innovations transfer are the part of the fourth cluster. Administrative-territorial units, which belong to the second cluster, are characterized by high indexes of market innovativeness. The lowest indexes of innovative activity are specific for administrative-territorial units of the third cluster.

Administrative-territorial units of Ukraine were grouped by the levels of intellectual and innovative constituent's growth of the industrial potential in Table 3.

The characteristic feature of intellectually-innovative clusters creation is that attention is focused not on the separate industrial enterprises but on establishing cooperation between research institutions and business structures. Such clusters are able to grow under the condition of a high frequency of ideas generating and existing possibilities of their implementation.

Table 1

The matrix of belonging degree of spatial concentration of intellectual constituent to four clusters

Number of a cluster				Administrative-territorial units	Number of a cluster			
1	2	3	4		1	2	3	4
		+		Vinnitsia	0,02	0,00	0,89	0,09
		+		Volyn	0,01	0,00	0,94	0,05
+				Dnipropetrovsk	0,90	0,01	0,04	0,06
		+		Donetsk	0,07	0,00	0,70	0,23
		+		Zhytomyr	0,01	0,00	0,95	0,04
		+		Zakarpattia	0,02	0,00	0,88	0,10
			+	Zaporizhzhia	0,19	0,01	0,13	0,67
		+		Ivano-Frankivsk	0,01	0,00	0,96	0,03
		+		Kyiv	0,05	0,00	0,66	0,28
		+		Kirovohrad	0,02	0,00	0,87	0,11
		+		Luhansk	0,04	0,00	0,78	0,18
+				Lviv	0,74	0,01	0,10	0,15
			+	Mykolaiv	0,17	0,01	0,18	0,63
+				Odesa	0,52	0,01	0,20	0,27
		+		Poltava	0,03	0,00	0,84	0,13
		+		Rivne	0,02	0,00	0,88	0,10
			+	Sumy	0,03	0,00	0,19	0,78
		+		Ternopil	0,04	0,00	0,77	0,19
+				Kharkiv	0,35	0,30	0,15	0,20
		+		Kherson	0,00	0,00	0,97	0,03
		+		Khmelnyskyi	0,01	0,00	0,95	0,04
		+		Cherkasy	0,03	0,00	0,64	0,33
			+	Chernivtsi	0,01	0,00	0,08	0,91
		+		Chernihiv	0,01	0,00	0,95	0,05
	+			Kyiv (city)	0,00	0,99	0,00	0,00

Calculated by the authors according to source: Vidkryta statystychna baza Derzhavnoi sluzhby statystyky Ukrainy

Table 2

The matrix of belonging degree of spatial concentration of innovative constituent to four clusters

Number of a cluster				Administrative-territorial units	Number of a cluster			
1	2	3	4		1	2	3	4
		+		Vinnitsia	0,07	0,03	0,84	0,06
			+	Volyn	0,04	0,02	0,13	0,81
			+	Dnipropetrovsk	0,03	0,02	0,12	0,82
			+	Donetsk	0,06	0,05	0,17	0,72
		+		Zhytomyr	0,09	0,04	0,72	0,15
			+	Zakarpattia	0,16	0,15	0,28	0,41
	+			Zaporizhzhia	0,19	0,71	0,07	0,03
+				Ivano-Frankivsk	0,42	0,24	0,24	0,10
			+	Kyiv	0,07	0,04	0,44	0,45
+				Kirovohrad	0,61	0,25	0,10	0,04
			+	Luhansk	0,09	0,07	0,21	0,62
+				Lviv	0,42	0,15	0,36	0,08
+				Mykolaiv	0,50	0,29	0,15	0,07
		+		Odesa	0,21	0,08	0,59	0,11
		+		Poltava	0,30	0,22	0,37	0,11
			+	Rivne	0,03	0,02	0,13	0,82
	+			Sumy	0,25	0,43	0,18	0,14
+				Ternopil	0,29	0,28	0,24	0,19
	+			Kharkiv	0,30	0,55	0,10	0,05
	+			Kherson	0,24	0,64	0,08	0,04
		+		Khmelnyskyi	0,05	0,02	0,82	0,10
+				Cherkasy	0,71	0,13	0,13	0,03
+				Chernivtsi	0,72	0,11	0,13	0,04
		+		Chernihiv	0,12	0,05	0,73	0,11
+				Kyiv (city)	0,42	0,40	0,13	0,05

Calculated by the authors according to source: Vidkryta statystychna baza Derzhavnoi sluzhby statystyky Ukrainy

Table 3

Qualitative structure of clusters of the spatial collaboration of intellectual and innovative constituents of the industrial potential

Cluster	Low	Average	High	Very high
Constituents				
Intellectual constituent	Vinnitsia, Volyn, Donetsk, Zhytomyr, Zakarpattia, Ivano-Frankivsk, Kyiv, Kirovohrad, Luhansk, Poltava, Rivne, Ternopil, Kherson, Khmelnytskyi, Cherkasy, Chernihiv regions	Zaporizhzhia, Mykolaiv, Sumy, Chernivtsi regions	Dnipropetrovsk, Lviv, Odesa, Kharkiv regions	The city of Kyiv
Innovative constituent	Vinnitsia, Zhytomyr, Odesa, Poltava, Khmelnytskyi, Chernihiv regions	Volyn, Dnipropetrovsk, Donetsk, Zakarpattia, Kyiv, Luhansk, Rivne regions	Zaporizhzhia, Sumy, Kharkiv, Kherson regions	Ivano-Frankivsk, Kirovohrad, Lviv, Mykolaiv, Ternopil, Cherkasy, Chernivtsi regions, and the city of Kyiv

Source: composed by the authors

Otherwise, a cluster will lose its reproductive ability, that is, creative environment acts as a cluster creation core. Taking into account the achieved results, Dnipropetrovsk, Lviv, Odesa, Kharkiv regions, and Kyiv can become such centres in Ukraine. This fact gives the opportunity to talk about the possibility of the creation of five intellectually-innovative clusters capable of concentrating innovatively active industrial enterprises around themselves.

Today, the most dynamic innovative development of industrial potential is observed in Lviv, Kharkiv regions and Kyiv with high indexes of development of both intellectual and innovative components. The most negative situation is observed in the Odesa region that proves the necessity to establish cooperation between scientific institutions, academic establishments, and business entities.

The emergence of similar contradictions in other administrative-territorial units points to the necessity of involving the state to act as an activator of the innovative process and as a regulator of establishing collaboration.

4. Formation of conceptual principles of intellectually-innovative industrial clusters creation

We believe that, first of all, it is necessary to adopt the Conception of cluster policy in order to do systematization of clusterization processes in Ukraine. It should contain not only aims, tasks, priorities, and directions but also foresee the introduction of pilot projects of implementation of the actions of cluster policy on both state and regional levels. For this purpose, the state, first of all, should work out the program of pilot clusters on the central level to list territorial clusters (on competitive principles), which are the most significant for the state. Taking into account the necessity of technological development of industrial potential, innovative industrial clusters must be organized by the following types of industrial activity: production of

computers, electronic and optical products; production of electric equipment; production of chemicals and chemical products; production of basic pharmaceutical products and medication.

In order to make industrial production environmentally friendly, it is useful to introduce projects related to the introduction of the resource and energy saving technologies, and low-waste manufacturing plants.

According to S. Y. Glazev, the development of microelectronics, biotechnologies, genic engineering, robot technology, nano- and picotechnologies, systems of artificial intelligence, as well as systems of high-speed transportation, and space exploration will promote the development of higher technological structures in the national economy (1990).

A set of certain actions should become inseparable as to the state support of industrial potential development on a cluster basis. They should include stimulation of participation of large enterprises in clusters structure, granting some tax deductions (taking into account the assessment of the productive and innovative potential of territorial clusters), providing target-oriented grants to local budgets (under the condition of co-financing of clusters from regional budgets) and others.

We should note that basic forms of stimulation of small innovative enterprises including cluster industrial systems were developed long ago in the world practice (Figure 1).

Alongside scientific research and educational establishments and organizations, intellectual and innovative clusters must include such participants:

- ✓ enterprises and organizations that take a direct part in production and distribution of the ready-made goods or services, suppliers of goods or services;
- ✓ enterprises and organizations that compose infrastructure of production and distribution of the ready-made goods or services;
- ✓ organizations of market infrastructure (auditing, consulting, crediting, insurance and lease services, logistic, trade, business with real property);

✓ organizations of innovative infrastructure (business-incubators, techno parks, industrial parks, regional centres of innovative development);

✓ organizations to support the development of small and middle business infrastructure (venture funds; centres for technology transfer; centres and agencies for entrepreneurship growth, regional development, attracting investments; native financial institutions; agencies for commodities export support; funds of

entrepreneurship support; funds of crediting assistance, investment funds, closed stock investment funds which attract investments for small and middle business entities, etc.).

The form “Cluster Passport” is offered to use in order to institutionalize the activity of cluster creation, which should contain the following information: the name of the cluster; initiators of the project of cluster creation; regulatory assurance of cluster activity (standards

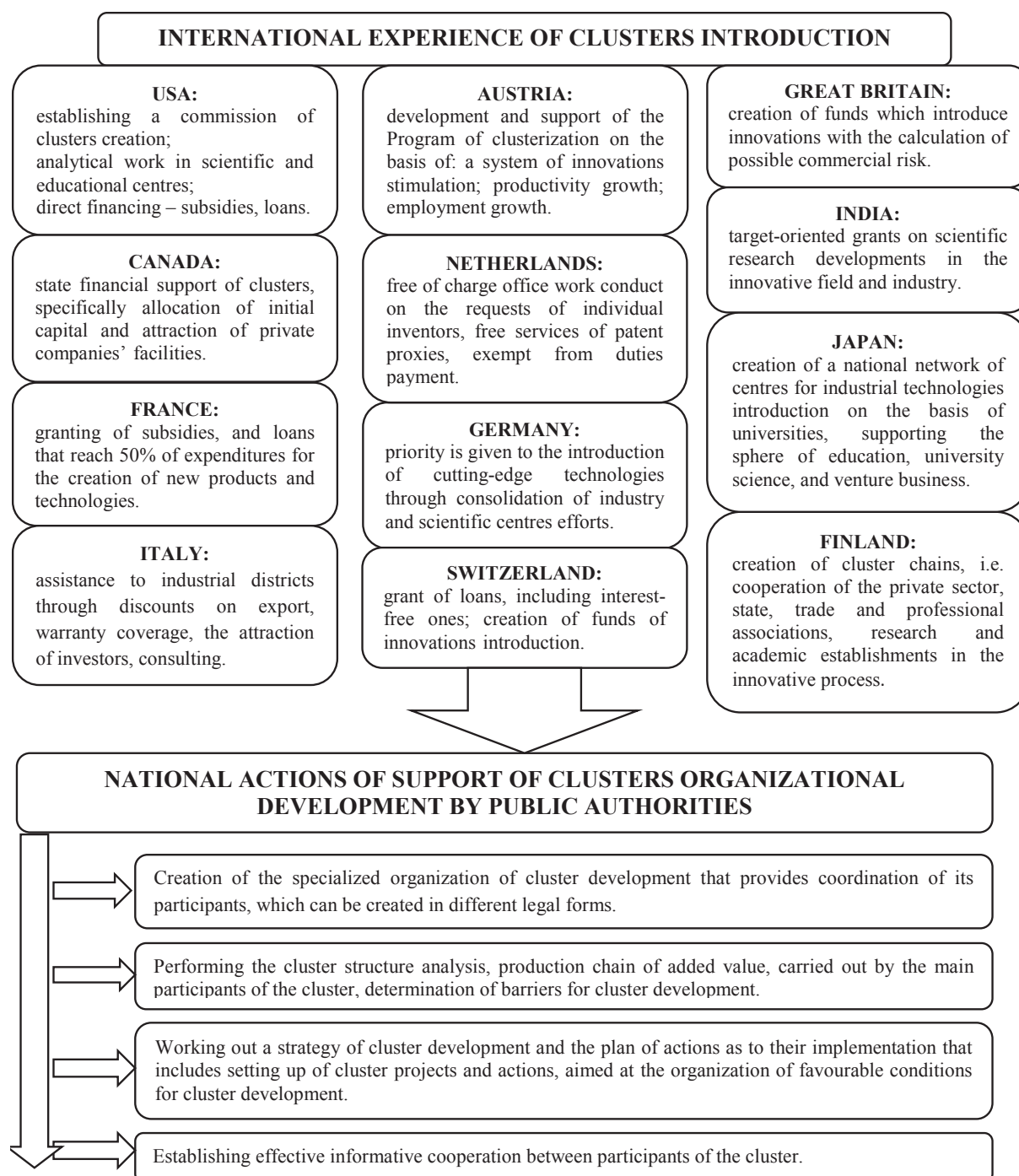


Figure 1. Introduction of the world practice of stimulation of industrial potential development on a cluster basis

Source: summarized by the authors (Kastels & Khimanen, 2006; Khomych, 2007; Chykarenko & Mamatova, 2011)

and regulations); definition of cluster missions and its visions (cluster conception); cluster participants (legal/natural entities) and their voluntarily obligations; management staff of the cluster (council or core of the cluster); expected results of the activity (short-term and long-term); target (address) groups that “experience” the results of cluster activity; stages of cluster creation (name of the stage, responsibility, terms of implementation); necessary resources (material, technical, financial, human, intellectual, and others); potential risks (internal and external) and ways of their prevention (overcoming or reduction of influence); cluster stakeholders (to carry out external control and represent interests of the cluster on all levels) (Sharov & Chykarenko, 2012). We recommend adding the following blocks: project innovativeness (product, technological or market) and relevance to the strategic priorities of economic development (of states, regions, etc.).

It is necessary to note that the creation of innovative clusters can also take place by the cost of state and local budgets. In this case, financial mechanism of state support of implementation of wide range of cluster projects must be quite flexible and involve several directions, for example: development of transportation, energy, and engineering infrastructure; development of housing and social infrastructure, including of material and technical base for health protection, culture and sport; development of innovative and educational infrastructure, implementation of works and projects in the field of research and developments, carrying out innovative activity, training and upgrading employees’ qualification; taking other actions in order to increase competitiveness of not only the organizations-participants of a cluster but also the territory of cluster location, and to rise the life quality of territorial communities.

5. Conclusions

Summarizing the achieved results, we state the following:

1. Taking into account foreign experience, establishing collaboration between a research sphere and business structures is an essential stimulator for innovative development of the industrial potential. The leading role in a cluster network belongs to research institutions and educational establishments, which role is to develop and invent an innovative product that meets market requirements and priorities of the economic policy of the state.

2. Keeping in mind the results of administrative-territorial units’ clusterization in Ukraine, we offer to distinguish five intellectually-innovative clusters by the indexes of intellectual (centres for knowledge resources) and innovative constituents’ development (the economic basis of a cluster) with cluster formation centres in Kyiv, Dnipropetrovsk, Lviv, Odesa, and Kharkiv regions. Creation of intellectually-innovative industrial clusters will assist the effective use of knowledge, the increase of intellectual labour efficiency, and application of its results for the transition of industrial potential onto the innovative development basis.

3. Considerable spatial asymmetry on the levels of development of intellectual and innovative constituents underlines the necessity of involving the state as a regulator and stimulator for establishing partnership relations, as well as an activator of innovative processes in the state. Provision of state support for pilot projects realization aimed at hi-tech productions development will allow increasing the competitiveness of the national industrial potential and national economy in particular.

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FINANCIAL AND ECONOMIC BASES OF THE FUNCTIONING OF STATE EXECUTIVE BODIES: PAST, PRESENT AND PROSPECTS OF IMPROVEMENT

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Abstract. *The aim of the article* is to analyse legal regulations and perspectives available in the specialized literature concerning financial and economic bases of the functioning of state executive bodies, which should be strengthened and formed according to one of the areas of administrative reform in Ukraine. *The subject of the study* is financial and economic bases of the functioning of state executive bodies: past, present, and prospects of improvement. *Methodology.* The study is based on the use of general scientific and special-scientific methods and techniques of scientific knowledge. The historical and legal method enabled to analyse the legal regulations of administrative and financial law on past, present, and prospects of improvement of financial and economic bases of the functioning of state executive bodies. The comparative legal method was used to improve the system of executive bodies and their authorities' exercise. The system-structural method enabled to consider and identify the most negative effects of the insufficient financing of executive branch activities and the exercise of their authorities. The methods of grouping and classifying were the basis for the author's approach to the identification of forms of financing state executive bodies. The technical legal method enabled to interrogate the state of affairs in financial and economic bases of the functioning of state executive bodies. *The results of the study* enabled to highlight the drivers of the improvement of forms of financing state executive bodies. *Practical implications.* In the study, scientific sources and legal regulations of administrative and financial law on past, present, and prospects of improvement of financial and economic bases of the functioning of state executive bodies are interrogated. The article highlights that strengthening and forming new financial and economic bases of the functioning of state executive bodies have been provided for by one of the areas of the Concepts of Administrative Reform, which nowadays is implemented both at the legislative and law enforcement levels. It was concluded that the formation of new financial and economic bases of the functioning of state executive bodies failed. There is only modelling of certain forms of financing of state executive bodies, familiar to the history of the origin and development of these bodies. Therefore, financial and economic bases of the functioning of state executive bodies should be interrogated by representatives of both administrative and financial law not only from a historical perspective or from a modern perspective but also with a view to the future. *Relevance/originality.* The original author's approach to the definition of financial and economic bases of the functioning of state executive bodies is the basis for developing the most promising areas of improvement of domestic legislation in this sphere.

Key words: administrative reform areas, state executive bodies, state budget, financial and economic bases of functioning of state executive bodies.

JEL Classification: K23, H72

1. Introduction

Ukraine is undergoing significant changes in all spheres of public life, mainly due to the transition from the post-Soviet system of state administration (command-administrative system) to the system of public administration, effectively manifested in democratic countries of the world. Ukraine is a democratic, social, and legal state; and human rights,

freedoms, and their guarantees determine the content and targeting of public activities. However, in practice, these provisions of the Constitution of Ukraine cannot be implemented without changes in both the system of public administration and the tools used by public administrators to exercise their powers. To confirm acknowledgement of Ukraine's status as a legal democratic state, the state, represented by its bodies,

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should be responsible for asserting and ensuring human and civil rights and freedoms. This cannot be achieved without strengthening the financial and economic bases of the functioning of state executive bodies.

State executive bodies have a significant influence on the development of social relations in political, socio-cultural, and economic spheres; therefore, they are an important element in the system of public authorities, regardless of checks and balances provided by national legislation in relations between the legislative, judicial, and executive bodies. Initially during the Administrative Reform implementation, and then during the optimization of the state executive branch system, the key issues under consideration are: 1) construction of an effective system of state executive bodies with clear allocation of their authorities and responsibility; 2) creation of an effective mechanism for providing state executive bodies with professional personnel; 3) creation of effective forms of work with local self-government bodies, especially with regard to financing and implementation of authorities in the respective territory; 4) strengthening and formation of new financial and economic foundations for state executive bodies functioning. For the period of Ukraine's independence, all of the above-mentioned spheres have undergone changes, ambiguously evaluated in the specialized literature. For example, administrative procedures incorporated into the legislation, the establishment of an administrative service institution, the use of an administrative contract are considered as positive changes in the legal regulation of state executive bodies' activities. The growth of corruption, sharp decline in public servants' professionalism, and efficiency reduction in the law enforcement sphere are considered as negative changes that have taken place in the activities of state executive bodies. One of the major courses of stalling the reform of the state executive bodies is the lack of necessary economic and social conditions and underestimated importance of the financial factor in the executive branch development. Due to financial, logistical support of state executive bodies, these bodies get the opportunity not only to comply with laws but also to formulate and implement state policy in certain spheres of public life.

Therefore, the financial and economic basis of state executive bodies' functioning determines their effective performance. In view of this, it is important to track the development of scientific thought and current legislation regarding the financial and economic bases of the functioning of state executive bodies in Ukraine.

To some extent, the issues of financial and economic bases of the functioning of state executive bodies were studied by D. A. Bekerska, O. A. Bukhtiarov, O. I. Derevchuk, S. T. Kadkalenko, O. Ye. Korystin, H. A. Kravchuk, M. P. Kucheriavenko, O. P. Orliuk, P. S. Patsurkivskyi, D. P. Rotar, I. Ye. Rukolainina,

L. A. Savchenko, D. L. Chernykov, A. H. Chubenko and other domestic scientists. However, in specialized legal literature, works, which reveal the essence of financial and economic bases of the functioning of state executive bodies as one of the areas of their reformation, are rare.

Therefore, consideration of the doctrinal approaches to the financial and economic bases of the functioning of state executive bodies becomes relevant and constructs the aim of this article. For its successful achievement, the following tasks should be solved: first, to outline the key aspects of financial and economic bases of the functioning of state executive bodies; second, to analyse the perspectives available in the specialized literature in relation to financial and economic bases of the functioning of state executive bodies; third, to propose an author's original approach to the improvement of financial and economic bases of the functioning of state executive bodies.

2. Presentation of the main material

Initially, the Concept of Administrative Reform in Ukraine, approved by the Decree of the President of Ukraine of July 22, 1998 (The Concept of Administrative Reform in Ukraine), stated the necessity to develop and incorporate into the national legislation the new financial and economic foundations of the functioning of public administration. The key areas of such a reform were: creation of a new legal framework regulating state administration in Ukraine; formation of new institutes, organizational structures and instruments of public administration; staffing of the new public administration system; scientific and informational support of the state administration system, formation of scientific and informational monitoring of its functioning; strengthening and shaping new financial and economic foundations for public administration functioning.

Over the last twenty years, firstly, the terminology has changed in the science of administrative law (instead of the term "state management," the terms "public management" and "public administration" are used), and secondly, each of the above-mentioned areas have received the corresponding implementation both at the legislative and enforcement levels (for example, the Laws "On Central Executive Bodies," "On Administrative Services," "On Public Service," the Concept of the Development of Electronic Governance in Ukraine, etc. were adopted).

However, along with a large number of proposals for improving the system of executive bodies and the exercise of their authorities, the Concept of Administrative Reform (hereinafter – the Concept) insufficiently revealed the content of an area of administrative reform such as strengthening and shaping new financial and economic foundations of the functioning of executive bodies.

First, the Concept noted that the cost of maintaining managerial staff (officials) would be adequate for the financial and economic conditions of the state. However, the Analysis of State and Local Budget expenditures in the first half of 2014-2017, prepared by the Financial and Economic Analysis Office of the Verkhovna Rada of Ukraine (Analiz vydatkiv derzhavnoho ta mistsevykh biudzhetyv u I pivrichchi 2014-2017), demonstrates that this provision of the Concept is ignored and not realized due to many subjective and objective reasons. For example, in comparison with January-June 2014, in January-June 2017 state budget, the share of expenditures on national functions increased from 21.7% to 28.2% due to the minimum wage increase, salaries of public servants, subsistence minimum, etc. While in 2014, the largest share was spent on social protection and social security, in 2017, it was expenditures on state functions. At the same time, it was noted that expenditures on social protection and social security decreased from 32.6% to 25.8%, on education, from 10.9% to 8.6%, and on health care, from 2.7% to 1.8%. However, to advocate the current situation, the transfer of a part of financing social functions of state authorities, financing educational institutions and health care facilities to the local level is considered as an argument.

Second, in the Concept, in the part concerning its financial and economic provision, it was noted that the practice of financing the executive bodies from the so-called additional mobilized and self-sustaining funds should be ceased (The Concept of Administrative Reform in Ukraine). For example, during the course of 1998, the Cabinet of Ministers of Ukraine was empowered to take a decision on the allocation of funds for the payment of salaries, pensions, scholarships, and other social payments by mobilizing additional funds (Pro mobilizatsiiu dodatkovykh koshtiv na finansuvannia sotsialnykh vyplat). However, the key elements that characterize state expenditures are: a certain complex of basic and working capital provided for the organization, its operational and economic independence, self-responsibility for all economic transactions and concern on their results. That is, the self-supporting relations are not inherent to budget organizations, and especially to executive bodies, because they have the right to spend only general and special funds of the state budget.

The possibility for the executive bodies to create and dispose of extrabudgetary funds is mentioned in the scientific literature of the early 70s-90s of the last century. For example, D. A. Bekerska defines "extrabudgetary funds"/own receipts as permits by the competent authorities to receive revenues from various enterprises, institutions, organizations for the execution of works, the provision of services, sales of products, sums with the right to their targeted use, as

well as the sums received from interest deductions of individual departments for the execution of works of general-sector nature and centralized mechanisms (Bekerskaia, 1973).

However, Budget Code of Ukraine of 2001 prohibited the creation of extrabudgetary funds by state authorities, authorities of the Autonomous Republic of Crimea, local self-government bodies and other budget institutions (Biudzhetni kodeks Ukrainy). Later, Budget Code of Ukraine of 2010 reiterated this prohibition by providing for minor exceptions to the general rule concerning, first, the placement of temporarily free funds of a single treasury account and funds of foreign currency accounts of the state budget on deposits or through the purchase of government securities with the subsequent repay until the end of the current budget period (Part 8, Article 16), and second, the implementation of local budgets (Part 2, Article 78) (Biudzhetni kodeks Ukrainy).

Therefore, the adoption of the Budget Code of Ukraine of 2001 initiated the distinction between the terms "special budget fund" and "extra-budgetary funds." The current Budget Code of Ukraine (2011) provides for that own receipts of budgetary institutions are received in addition to the general budget funds and are included in the special budget fund, which consists of: 1) targeted budget revenues (including own receipts of budgetary institutions); 2) budget expenditures from specific defined revenues of the special budget fund (including own revenues of budgetary institutions); 3) budget crediting (repayment of loans to the budget with the definition of the target and granting of credits from the budget, carried out from specific defined revenues of the special fund of the budget); 4) financing of the special fund of the budget.

According to A. H. Chubenko, these provisions of the Code solve the problem of delineating state budget and extrabudgetary funds and fully comply with the principle of the budget system completeness (Chubenko, 2012).

Third, the Concept provided for that ministries, similar to most other central executive bodies, should be financed from the state budget, while a small group of central executive bodies (referred to in the Concept as "executive bureaus"), created to implement registration and authorization functions in relation to individuals and legal entities (a paid basis included) may have mixed financing, that is, both from the budget and own income. It was noted that in national legislation, counter-commercialization mechanisms for such executive bodies should be provided for.

According to the Law of Ukraine "On Central Executive Bodies" (Pro tsentralni orhany vykonavchoi vlady), the bodies authorized to provide administrative services are "public services." However, no special provision in the law regulates

the financial and economic foundations of the functioning of public services as central executive bodies. Part 1 of Article 25 of the Law only states that financial and logistical support of the activities of ministries and other central executive bodies shall be from the State Budget of Ukraine, except in cases determined by law. That is, in each particular case, the legal regulation shall provide for the procedure for the creation, competence, and areas of executive body activities. For example, Article 28 of the Law of Ukraine "On Antimonopoly Committee of Ukraine" (Pro Antymonopolnyi komitet Ukrainy) provides for specificities of financing a central executive body with a special status, the Antimonopoly Committee of Ukraine. Financing of the Antimonopoly Committee of Ukraine and its territorial offices comes from the general and special funds of the state budget. The payment, charged to reimburse expenses on the examination of applications for concerted practice permit, the concentration of economic entities, etc., shall be credited to a special account of the special fund of the state budget. These incomes are not subject to withdrawal and are used for their targeted purpose to finance activities of the Antimonopoly Committee of Ukraine and its territorial offices, in particular, for the logistical maintenance, including transport, creation and development of information and analytical base, publication of printed matters of the Antimonopoly Committee of Ukraine, training, retraining, professional development and social and household support of employees of the Antimonopoly Committee of Ukraine and its territorial offices.

Financing and logistical maintenance of the National Police of Ukraine, as the central executive body, is carried out from the State Budget of Ukraine, as well as other sources not prohibited by law (Pro Natsionalnu politsiyu). For example, the Department of Police Security, as a structural unit of the National Police, today provides services for the protection of entities and protection of individuals on a commercial basis. Is this approach justified, especially in the context of the adoption of the Law of Ukraine "On Security Activity" in 2013 (Pro okhoronnu diialnist), according to which, security activities are defined as a type of economic activity of the provision of services for the protection of property and citizens?

For example, M. V. Zavalnyi criticizes this approach and argues that the provision of security services by the Security Police on a commercial basis contradicts the main functions and tasks of the National Police of Ukraine (Zavalnyi, 2018). N. A. Bulychova considers the financing of state executive bodies, including the bodies of Internal Affairs, from another perspective. According to her, the increasing need to raise funds of budget institutions' own revenues, along with the insufficient total financing from the general fund, indicates significant changes in the state of affairs in

the national economy, such as unsatisfied demand for social services and other features, and determines the introduction of paid public services. In addition, the inclusion of special funds of state bodies in the budget provides an opportunity to realize both the public interests of the state itself and the interests of society (Bulycheva, 2004).

3. Conclusions and perspectives for further research

The analysis of scientific sources and current legislation regarding financial and economic bases of the functioning of state executive bodies enables to conclude:

1. Strengthening and creating new financial and economic bases of the functioning of state executive bodies is one of the areas of administrative reform in Ukraine, which was officially originated in 1998, but is being implemented both at the legislative and enforcement levels. Despite politicians' refusal to use the term "administrative reform" discredited by the inconsistent performance of state authorities in implementing the basic provisions of the Concept of Administrative Reform, reforming the state executive bodies on their democratization, optimization, decentralization, and financial and economic basis of functioning remains on the agenda.

2. The financial and economic basis for the functioning of state executive bodies is the subject of research in financial law, therefore, unfortunately, this aspect has not been comprehensively covered by studies of administrative law representatives, focused mainly on the problems of administrative and legal support of the executive bodies, optimization of their activities, improvement of public service, legal provision of relations between executive bodies and other entities, for example, natural and legal persons, local self-government bodies, etc. It is imperative to conduct further joint studies by representatives of administrative and financial law on financial and economic bases of the functioning of state executive bodies, not only in the historical aspect or from a modern perspective, but also with a look into the future. This is because to prevent corruption in executive bodies, the state has to increase gradually the cost of salary payments, implementation of the Concept of e-governance, logistical support for executive bodies, while the economic situation in the country does not allow the state to finance fully all areas in this sphere.

3. The formation of new financial and economic bases of the functioning of state executive bodies, provided for in the Concept of Administrative Reform, was not implemented. For now, previously existing forms of financing state executive bodies have only been modelled.

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THE ADAPTIVE MANAGEMENT SYSTEM OF MARKETING COMMODITY POLICY*

Alona Natorina¹

Abstract. *The purpose* of the article is to substantiate theoretical and methodological fundamentals of the formation of adaptive system for managing the marketing commodity policy through the example of online retailers, as well as to analyse results of approbation of conceptual model of adaptive management system of marketing commodity policy in practical activities of Ukrainian online retailers in various market segments. *Methodology.* Within the research, activities of Ukrainian online retailers were considered and analysed depending on their sphere and specialisation. Methodological basis of the study is comprised of the system of general scientific and special methods, namely: dialectical method of scientific cognition; methods of system analysis; methods of cause-and-effect analysis; methods of comparative analysis; multidimensional statistical methods. Based on *the results* of the research conducted, the author has developed a conceptual model of adaptive system of management of marketing commodity policy of online retailers, the main goal of which is to form adaptive management system of marketing commodity policy of online retailers as a central reference point in the identification of marketing commodity strategy needed to be implemented, which mostly influences long-term sustainable functioning of online retailers in the market by means of the fullest satisfaction of typical demands, needs, and preferences of the target audience and occasional online buyers along with irrational online orders. List of components of the marketing environment, which have quantitative and qualitative character and different degree of impact on the activities of online retailers depending on their belonging to a certain market segment, is determined. Mechanism of adaptive management of marketing commodity policy of online retailers is proposed that is oriented to revealing the integrity of the process in the context of permanent changes in the market situation; is directed to providing a high-quality level of management of online activity of retailers. *Practical importance.* Based on the results of the approbation of conceptual model of adaptive management system of marketing commodity policy of Ukrainian online retailers in different segments, it is determined that its implementation in online activity of retailers contributes to their effective functioning and sustainable long-term development, in particular, by means of adjusting reference points of management of marketing commodity policy, and results into improving the process of making rational strategic decisions and substantiating tactical measures of implementation. Practical application of the mechanism of adaptive management of marketing commodity policy of online retailers promotes the implementation of a sound variant of achievement of their strategic goals. *Value/originality.* Implementation of the developed adaptive management system of marketing commodity policy may ensure effective performance and sustainable development of online retailers in the future, in particular, by means of relevant changes in the management of marketing commodity policy.

Key words: marketing commodity policy, adaptive management system of marketing commodity policy, adaptive management mechanism, online retail.

JEL Classification: M16, M31, L81

1. Introduction

Today, despite the presence of bifurcations in the transformational economy and the permanent changes in the marketing environment, it is possible

to state the high online activity of enterprises both at the international and national levels, in particular, on the territory of Ukraine, as a result of the introduction of innovative methods of doing business, application

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of benchmarking, and implementation of active marketing policy to attract new market segments to online purchasing of goods, as well as implementation of a set of measures to expand the existing target audience. In the conditions of a market economy, the priority tasks of enterprises operating in the Internet space are the rational organization and conduct of online trade, which is relevant to the requirements and demands of consumers, ensuring of stable competitive advantages of enterprises in the Internet space by an instantaneous adequate response to market changes and the simultaneous formation of key factors of success in the industry, the expansion of the market niche due to the constant adjustment of marketing commodity policy. That is why marketing commodity policy is a key element in promoting the commercial success of online activities of enterprises in the short and long term, given the intensity of competition and the constant change in consumer preferences in the market.

The issue of the identification of an adequate marketing commodity policy for Internet businesses, its change in accordance with the specifics of online business activities and implementation are important for the online activities of the enterprise and are solved according to the results of monitoring and evaluation of the effectiveness of the management system of marketing commodity policy of enterprises. The complication and high dynamism of factors of the marketing environment predetermine the need to develop an adaptive system for managing the marketing commodity policy of enterprises, which is one of the determining factors of competitiveness in the Internet space.

Therefore, the purpose of the article is to substantiate theoretical and methodological fundamentals of the formation of adaptive system for managing the marketing commodity policy through the example of online retailers, as well as to analyse results of approbation of conceptual model of adaptive management system of marketing commodity policy in practical activities of Ukrainian online retailers in various market segments.

2. The current state of the issue

Works of foreign scientists and economists are devoted to the study of the specifics of online retailers' activities, among them are: S. Brown and D. Roth (Brown, Roth, 2017), Guinn J. (Guinn, 2017), Masayuki A. and Hitoshi S. (Masayuki, Hitoshi, 2014). Well-known scholars and economists were involved in the research of the marketing commodity policy management system of online retailers, including: Lambin J-J. and Schuiling I. (Lambin, Schuiling, 2012), Lehmann D. and Winer R. (Lehmann, Winer, 2010), Porter M. (Porter, 2008). However, given the rapid growth of Ukrainian retail and the need to find ways to optimize the management process of online retailers' marketing commodity policy, it still remains relevant.

Managing the marketing commodity policy of online retailers should be mainly focused not on solving existing problems but on the use of existing opportunities and strengths, that is, should be based on the adaptive approach, which involves the use of organizational changes of the existing potential of the online retailer and the identification of its reserves as the basis, which led to increased attention to economic and mathematical methods and models in the analysis of marketing activities of the enterprise. After all, the very use of mathematical models gives better and more reliable results than matrix ones. The application of economic and mathematical methods and models in marketing is considered in the works of foreign and domestic scientists, such as Davnis V. and Tiniakova V. (Davnis, Tiniakova, 2006), Danko T. and Skorobohatykh I. (Danko, Skorobogatykh, 2005), Lepa M. (Lepa, 2002).

The solution to the problem of multidimensionality and ambiguity of economic processes and phenomena is the methods of multidimensional analysis. The study of the issue of applying methods of multidimensional analysis to substantiate economic phenomena was undertaken by researchers such as Aivazian S., Bezhaeva Z. and Staroverov O. (Aivazian, Bezhaeva, Staroverov, 1974), Kozhushko O. (Kozhushko, 2010), Sablina N. and Telychko V. (Sablina, Telychko, 2009).

Without reducing the importance of the research in the given direction, it should be noted that the issue of the formation of an adaptive management system of marketing commodity policy currently requires a theoretical and methodological solution.

To substantiate theoretical and methodical principles of the formation of an adaptive management system for marketing commodity policy, the activities of Ukrainian online retailers were investigated depending on their field of activity and specialisation. As a methodological basis for the formation of an adaptive system for managing the marketing commodity policy of online retailers, a system of general scientific and special methods was used, namely: dialectical method of scientific cognition – to study fundamental principles of defining the guidelines for marketing commodity policy of online retailers; methods of system analysis – to establish structural relationships between the effectiveness of the marketing product strategy of online retailers at the functional level and the chosen marketing product strategy; methods of cause-and-effect analysis – to identify the place and role of adaptive system for managing the marketing commodity policy of online retailers; methods of comparative analysis – to compare performance indicators of the online retailers under study; multidimensional statistical methods – to determine the root causes of the formation of a management system for marketing commodity policy. The information-factual basis of the study was the works of domestic and foreign specialists

in the field of marketing, as well as original materials of marketing researches worked out and summarized by the author in person.

3. Principles of formation of an adaptive management system for marketing commodity policy

Feature of adaptive system for managing the marketing commodity policy of online retailers is the possibility of changing its constitutive attributes through the expansion or abandonment of a certain list of factors of marketing environment that directly or indirectly influence the marketing commodity policy of online retailers and, as a consequence, predetermine the review of the expediency of continuing to follow the current strategy in accordance with specific market conditions of operation. Adaptive system for managing the marketing commodity policy of online retailers provides for the implementation of flexible marketing policy in Internet space given the inversion of macroeconomic processes in the modern changing business environment due to monitoring and analysis of the degree of influence of the factors on online activities of retailers for their further adjustment.

According to the results of research of international and domestic experience of functioning of online retailers under the active digitalisation, the article substantiates a conceptual model of adaptive system for managing the marketing commodity policy of online retailers, the implementation of which will contribute to improving their performance and guarantee the stability of operation in Internet space (Figure 1). As Figure 1 shows, a conceptual model of the adaptive system for managing the marketing commodity policy of online retailers includes three structural blocks, namely: theoretical provision, information-analytical and organisational support, practical implementation. Theoretical provision forms a foundation of a conceptual model of the adaptive system for managing the marketing commodity policy of online retailers. Components of this block of conceptual model are in close cooperation with the block of information-analytical and organisational support and vice versa. Information-analytical support includes two components – analysis and collection of information, which in turn provides for conducting a number of interrelated actions, including: collection and preparation of necessary data; identification of analysis methods for understanding of data, formation and test of hypotheses; analysis of a way of making a sound decision on the formation of adaptive system for managing the marketing commodity policy of online retailers. Therefore, information-analytical support requires the use of analytical data for increasing the solution accuracy.

Due to the use of analytical information, it becomes possible to ensure information richness of decisions. The actual use of analytical data, which consider

market and economic uncertainty, allows online retailers to make timely and sound decisions. Analysis of decisions is agreed upon by permanent check and further improvement of decision-making efficiency. Implemented decisions require constant monitoring of their efficiency.

Within the organisational support, two components can be distinguished – processing and evaluation. The first component is a set of means needed for effective transformation of analytical information. It may include typical computer application program packs, typical structures of online retail management. Evaluation, which is the second component, is carried out according to the results of internal and external information analysis.

The main purpose of the conceptual model provides for compliance with certain criteria:

1. Flexibility. The criterion reflects how fast online retailers can change their online activity, which will ensure the implementation of an updated marketing commodity strategy. Flexibility influences the degree of the strategy's reflection in the actions of online retailers. Without flexibility, online retailers are not able to consistently implement a new strategy without a long-term transition period. Actually, online retailers risk never achieving a strategic goal, if changes in the strategy take place faster than online retailers can respond. In order to minimise the value of lost opportunities and maximise the flexibility of online activities as a whole, the decision must change. The flexibility of this decision – both the speed of identifying opportunities for improvement and the readiness with which they can be changed – is provided by its marketing commodity strategy.

2. Speed. Making an optimal decision on the formation of an adaptive system for managing the marketing commodity policy of online retailers and determination of the direction of marketing commodity policy is possible at a certain time.

3. Efficiency. Proper determination of the state of the adaptive system for managing the marketing commodity policy of online retailers will allow avoiding heavy marketing costs, as well as improving the productivity of their online activity.

Digitalisation forces online retailers to more optimise making sound decisions at different stages of hierarchical levels of management. They are obliged to qualify these decisions as corporate assets. So, the concentration of online retailers' efforts on making sound decisions on the formation of an adaptive system for managing the marketing commodity policy envisages its consideration as corporate assets, which means the following characteristics:

1. Strategic importance. Corporate assets are strategic. Recognition of the process of making a sound decision of the functional level as important for activities of online retailers is a guarantee that the formation of an adaptive system for managing the marketing commodity policy is of strategic importance.

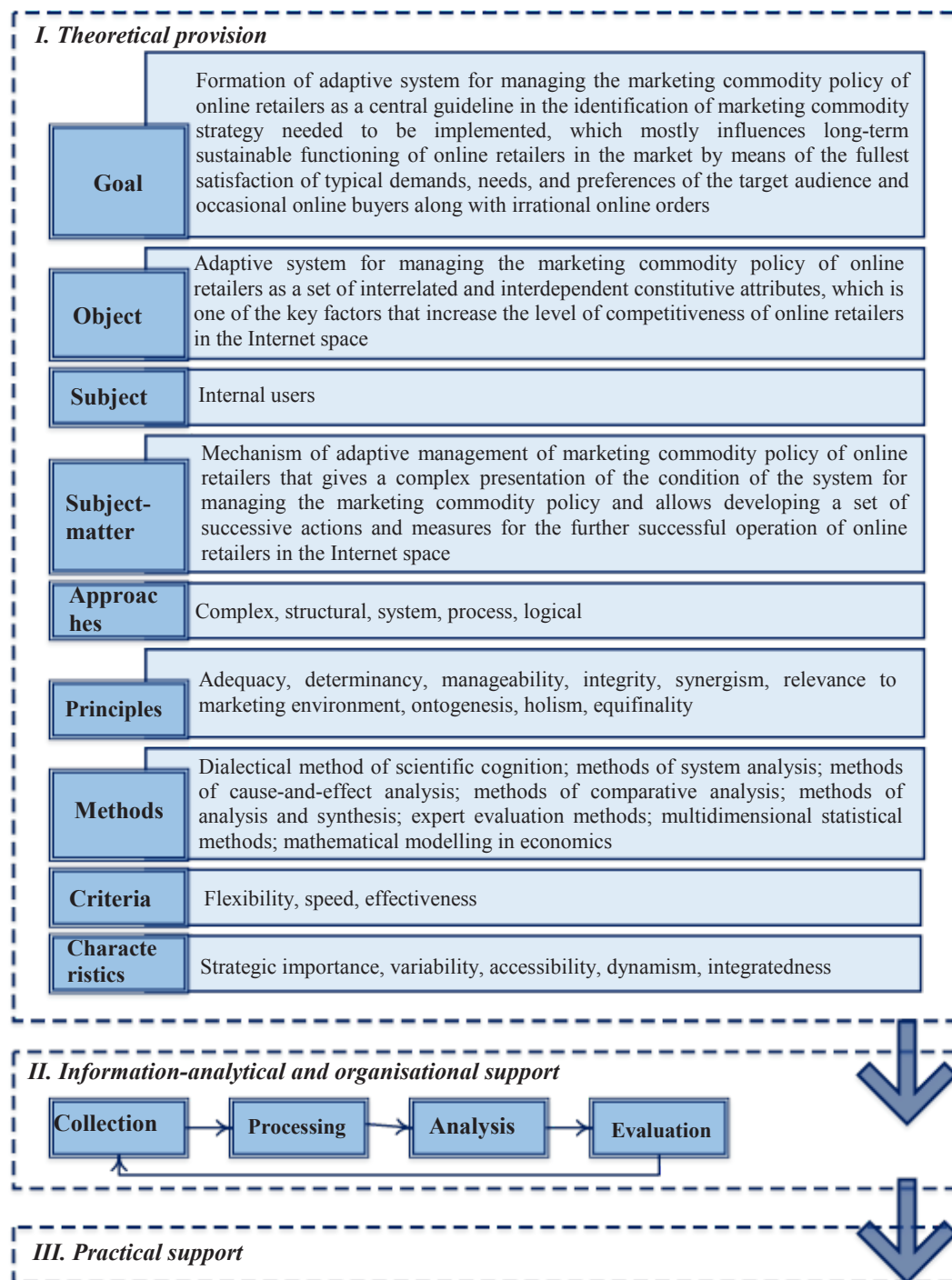


Figure 1. A conceptual model of the adaptive system for managing the marketing commodity policy of online retailers

2. Variability. Making a sound decision on the formation of an adaptive system for managing the marketing commodity policy is based on the consideration of several scenarios of online retailers' activities in the implementation of the appropriate marketing commodity strategy, taking into account changes in the business-building environment.

3. Accessibility. Corporate assets must be accessible if its correct use is planned. Online retailers should realize

that corporate assets are a tool of competitive struggle and subject-matter of reporting and analysis. Provision of accessibility of making a sound decision provides for the management of decision-making systems in the same way as the management of other elements of the enterprise infrastructure, preservation of information about the decision by using special technologies, and ensuring standard use of these technologies and helper methods in online retail.

4. Dynamism. Adaptive system for managing the marketing commodity policy of online retailers provides for the monitoring and review of factors influencing it, which is preceded by a number of facts: market, demands, needs, preferences of online purchasers, actions of competitors in the Internet space are not static; a decision is not endlessly optimal in the changing marketing environment; internal changes in the activity of online retailers are constant.

5. Integratedness. Data integration results into making weighted decisions. The sense of a conceptual model of the adaptive system for managing the marketing commodity policy of online retailers is to identify the relationship between factors influencing it and define possible positive and negative changes caused by these factors.

It is important to note that within the conceptual model of adaptive system for managing the marketing commodity policy of online retailers, the author has developed a mechanism of adaptive management of marketing commodity policy of online retailers that gives a complex presentation of condition of the system for managing the marketing commodity policy and allows developing a set of successive actions and measures for further successful operation of online

retailers in the Internet space. This mechanism provides for the process of decomposition of decision-making in the process of formation of an adaptive system for managing the marketing commodity policy of online retailers, namely – the division of the process into subsequent stages, the condition of each of which is the consideration of all factors of influence on the activity of online retailers.

4. Findings

According to the results of the approbation of a conceptual model of the adaptive management system of marketing commodity policy of online retailers, it is determined:

1. List of components of the marketing environment, which have quantitative and qualitative character and different degree of impact on the activity of online retailers depending on their market segment (Figure 2).

According to Fig. 2, C_{qt} and $C_{ql} \in CO$, where:

$$C_q = \{C_1, C_2, C_3, C_4, C_5, C_6, C_7\}; \quad (1)$$

$$C_{ql} = \{C^1, C^2, C^3, C^4, C^5, C^6, C^7, C^8, C^9, C^{10}, C^{11}, C^{12}\}. \quad (2)$$

2. The developed conceptual model of the adaptive management system of marketing commodity policy of online retailers provides for dynamic and quick

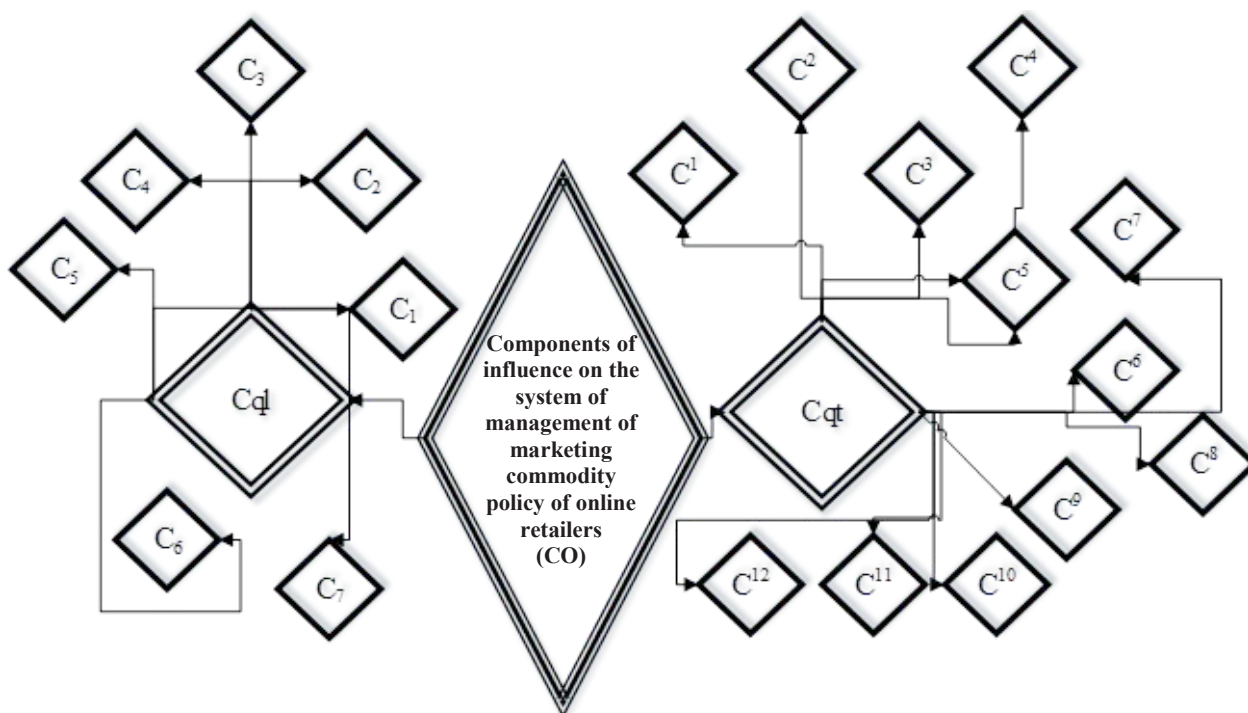


Figure 2. Components of influence on the system of management of marketing commodity policy of online retailers

Notes: CO – components of influence on the system of management of marketing commodity policy of online retailers; C_{qt} – components of quantitative measurement: C_1 – site rating in Ukraine, C_2 – bounce rate, C_3 – daily page views per visitor, C_4 – visitors' daily time spent on site, C_5 – range width, C_6 – range depth, C_7 – availability of obsolete goods in the total number of varieties of goods; C_{ql} – components of qualitative measurement: C^1 – customer orientation, C^2 – integration with the category management system of goods and their development strategy, C^3 – balance of realization of goods, C^4 – product rationalization, C^5 – product mix stability, C^6 – assortment renewal level, C^7 – product mix consistency, C^8 – product mix policy consistency, C^9 – availability of regular customers, C^{10} – use of marketing elements in the product mix formation, C^{11} – product mix positioning level, C^{12} – strategic attractiveness of product portfolio of the enterprise.

response of online retailers in various segments to changes in demands, needs, and preferences of the target audience and occasional online buyers along with irrational online orders, actions of priority competitors, and continuous transformation economic processes.

3. The proposed mechanism of adaptive management of marketing commodity policy of online retailers is oriented to revealing the integrity of the process in the context of permanent changes in the market situation; is directed to providing a high-quality level of management of online activity of retailers. Practical application of the mechanism of adaptive management of marketing commodity policy of online retailers promotes the implementation of a sound variant of achievement of their strategic goals.

5. Conclusions

A conceptual model of the adaptive system for managing the marketing commodity policy of online retailers is developed; it includes three structural blocks – theoretical provision, information-analytical and organisational support, practical implementation. The main goal of the conceptual model is to form adaptive management system of marketing commodity policy of online retailers as a central reference point in the identification of marketing commodity strategy

needed to be implemented, which mostly influences long-term sustainable functioning of online retailers in the market by means of the fullest satisfaction of typical demands, needs, and preferences of the target audience and occasional online purchasers along with irrational online orders.

Based on the results of approbation of conceptual model of adaptive management system of marketing commodity policy of Ukrainian online retailers in different segments, it is determined that its implementation in online activity of retailers contributes to their effective functioning and sustainable long-term development, in particular, by means of adjusting reference points of management of marketing commodity policy, and results into improving the process of making rational strategic decisions and substantiating tactical measures of implementation.

Further research will be aimed at developing econometric model of adaptive management system of marketing commodity policy of online retailers, which will take into account components of marketing environment, identified in this study, that have quantitative and qualitative character of measurement, and the use of which will result in the formation of product portfolio of online retailers that corresponds to demands, needs, and preferences of online buyers to the fullest extent.

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ECONOMIC AND LEGAL ASPECTS OF THE FRANCHISE AGREEMENT IN POLAND

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Abstract. *The purpose* of the article is to study the economic and legal nature of the franchise agreement in Poland. Since franchising in this country has become the most common way of establishing a business, it is advisable to identify the key economic and legal features of the franchise agreement in which the parties specify their rights and obligations, the franchise price, the duration of the franchise relations, the procedure for performing calculations, etc. *The subject* of the study is a franchise agreement in Poland. *Research methodology.* The research is based on the use of general scientific and special-scientific methods and techniques of scientific knowledge. The dialectical method allowed us to investigate the definition of a franchise agreement in Poland and its key terms. The comparative legal method was used to compare doctrinal approaches to this issue. The statistical method was used to establish data that reflects the effectiveness of franchising activities. The method of system analysis helped to find out in which areas of economic activity franchising is most demanded. Interpretation of the content of Polish legal acts governing issues related to the conclusion of a franchise agreement in this country was realized with the help of the normative-dogmatic method. The system-structural method was used to study the franchise agreement in Poland as a single entity (system) with the coordinated functioning of all its elements. The methods of grouping and classifying formed the basis for separating the list of conditions, which are necessary for concluding a franchise agreement in Poland, as well as provisions that should be included in the content of this agreement. Methods of analysis and synthesis helped to study some parts of this agreement to formulate further conclusions. *Practical application.* The positive experience of Poland in regulating issues related to the conclusion of a franchise agreement can be used for making appropriate changes to the Ukrainian legislation. Although there is no special legislation in Poland, which regulates the issues connected with this kind of contract, the adoption of a number of progressive economic measures, as well as complement existing regulations with the provisions on franchising, allowed Poland to become one of the most attractive countries for foreign entrepreneurs. *Correlation/originality.* This scientific work is the first research in Ukraine devoted not only to general issues of regulation of franchising activity in Europe but specifically to the franchise agreement in a separate country (in Poland) and its legal and economic peculiarities.

Key words: franchising, franchise contract, franchisor, franchisee, disclose, contract terms, antitrust agreements, safe harbour.

JEL Classification: K12, F55

1. Introduction

Franchising is a form of entrepreneurial activity that is constantly growing and has become increasingly widespread and effective in recent years. Big companies are increasingly using the franchising system to expand their network, which has proven its suitability worldwide. Franchising is applied in almost all areas of business – from fast food restaurants to gas stations.

Franchising is a widespread way of opening a business in Poland. Over the past 15 years, this country has achieved significant economic success by modernizing the economy and stabilizing it. Poland is one of the fastest developing countries in Europe. This fact is

confirmed by various market indicators, such as gross domestic product (GDP), consumer price index, labour market structure, competitive wages and dynamic foreign trade turnover. With GDP growth of 4.6% in 2017, Poland remains among the leaders of European countries. In the same year, the Eurozone has been growing by 2.5% and the whole EU – by 2.5% (Polish Franchise Organization).

Costs of conducting business in Poland are significantly lower than in Western Europe. Moderate labour value is also an attractive factor for foreign investors. Although the economy of this state is not yet in line with the economies of other European countries,

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EU membership has played an important role in its strengthening. In recent years, more and more foreign entrepreneurs (including from neighbouring Ukraine and CIS countries) invest money into a stable economy of a rapidly expanding Polish state.

Foreign franchises are developing successfully in the Polish market. According to expert appraisal, more than 10,000 franchise companies are launched annually in Poland. Polish businessmen perceive franchising as a safe business concept. The number of “multifunctional franchisees” (entrepreneurs who own more than one branch) is growing, which is evidence of a high level of confidence in the franchising system.

Most entrepreneurs prefer to develop their business in already proven and demanded industries. In this regard, a large part of the franchises Polish market is occupied by grocery stores. High growth rates are also observed in the service sector. Especially popular are franchises related to providing professional advice and legal support.

National franchises occupy more than 85% of the market in Poland. Polish franchises are also successful in other countries, for example, in Ukraine, Russia, the Czech Republic, as well as in other countries of Central and Eastern Europe.

The study of franchising as a type of international business was undertaken by N. V. Bezrukova, L. V. Voroniak, T. M. Hryhorenko, N. M. Hrushchynska, O. M. Kolodiziev, O. Ye. Kuzmin, A. M. Mahomedova, V. Ye. Sakharov, V. S. Tatarinov, T. M. Tsyhankova, A. V. Tsytrat, I. M. Shkola and others. However, this would be the first study in Ukraine devoted to franchising in Poland, and in particular, the economic and legal characteristics of the franchise agreement in this country.

In connection with the course of Ukraine on European integration, it is reasonable to study the positive experience of leading European countries for its further application to the legislation of our state. Therefore, the purpose of this article is to study economic and legal characteristics of the franchise agreement in Poland – the state with a fully-developed franchising market which is constantly growing, and that has been achieved only in the last 15 years.

2. Statement of the baseline

The Polish franchising market is mature but is steadily growing. Local entrepreneurs are aware of many potential alternatives that allow them to decide on future prospects for franchising. According to the private franchising consulting company PROFIT System, in 2017 the Polish franchise sector covered 1,220 independent franchise networks and more than 71,400 franchise stores and service sectors. Franchising is one of the fastest growing options for small private firms. According to the data, the average franchise

“employs” 5-6 people, and this sector as a whole provides 460 000 jobs in Poland.

The average investment in a franchise in 2017 amounted to USD 40,000. Most of the franchise networks – 85% – originated in Poland. The largest franchising sector with 204 brands is gastronomy. The leading brands are KFC, Starbucks, Pizza Hut, Dunkin’ Donuts, Subway, and McDonald’s. It is followed by retailing with 156 retail brands and 36,000 licensed locations (Poland Country Commercial Guide).

The largest Polish players on the franchising market are wholesale company Eurocash Group, convenience stores chain Zabka, spirits stores chain Al Capone, boutiques of women’s underwear Esotiq, Getin Bank and BPH Bank, the largest network of payment agencies Moneta, retail store LPP Group, retail cosmetics sales company Inglot, courier service P, street food network Kołacz, the first network of training centres Lauren Peso Polska SA, petrol stations network Lotos, and restaurant chain Sphinx (Maciej Gawroński, 2015).

One of the fastest growing trends is online sales, especially in the food and retail sectors. Online ordering of products is becoming popular in Poland nowadays. For example, Uber Eats is available in Poland as well. Local catering companies such as Blue Apron also appear.

Companies, which are members of Polish Franchise Organization (PFO) use the European Code of Ethics for Franchising (hereinafter – the Code of Ethics), adopted by the European Federation of Franchising, which member Poland is. Membership in the PFO is not mandatory, but it is recommended. The advantages of membership in the PFO are, among other things, quick and more favourable opportunities for cooperation with reliable franchisees. Members of the PFO also enjoy a better reputation among franchisees since they receive a certificate of trust when joining the organization, which is a confirmation of the quality of the networks and their compliance with the requirements of the Code of Ethics.

There are no clearly defined rules and regulations, which regulate franchising activities in Polish law. This also applies to franchise agreements, which are mostly concluded in accordance with the provisions of the contract law. The rules governing franchising activities are contained, among others, in: the Civil Code; the Consumer Protection Law; The competition Law; General data protection Regulation; The Labour Code; unfair trading practices.

In addition, Polish courts establish certain legal features for regulating the relationship between the franchisor and the franchisee in their decisions. Thus, the Supreme Court of Poland in the Case № I CSK 348/06 as of 07 July 2007, has decided (in accordance with previous decisions of the civil court, administrative court and competition court) that the essence of the franchising method of cooperation is to contractual obligation of

the franchisor to allow the franchisee to use the mark, emblem, symbols, patents of the company, as well as technical and organizational know-how (concept), while the franchisee obliges to perform the specified entrepreneurial activity using the right of obtaining new customers (to open new outlets), which was provided to him by the franchisor. The Supreme Court also found that one of the main goals of franchising is to gather information about the market where the franchisee will develop franchising business and optimize sales processes. In addition, the decision stated that during the term of the franchise agreement, the franchisee operates and concludes contracts *sui juris* with new partners and also acquires new retail outlets. Finally, the Supreme Court confirmed that the franchise agreement is a long-term and reciprocal agreement, according to which the franchisor's mutual obligation cannot be assessed in terms of equivalence (Franchise, 2019).

There is no legal definition of the franchise agreement in Poland, that is, it belongs to unnamed contracts. It is subject to the general principles for the conclusion of contracts, which are prescribed in the Civil Code of Poland (hereinafter – the Civil Code) (Ustawa z dnia 23 kwietnia 1964). For example, section 7 of this normative legal act consolidates the principle of integrity, which is presumed. The principle of freedom of contract is prescribed in section 351-1. According to this principle, the contracting parties may establish legal relations at their own discretion, if the content or purpose of the agreement does not contradict the rules of the statutory law or the basic principles of community life.

The principle of community life (*zasady współżycia społecznego*) is reflected in section 5 of the Civil Code. On the basis of this principle, any legal act may be declared void if it does not meet the minimum standards of generally accepted notions of honesty and correctness in relations with individuals and legal entities (that is, if it is substantially unjust).

Concerning the relations between entrepreneurs, the principle of community life should be understood as the principle of “fair treatment” (*zasady uczciwego obrotu*), reliability, decency, trust and loyalty to the contractor. Each entrepreneur should refrain from any action, which would be a sign of a lack of respect to their contractors' interests and/or would cause injury in their interests (Franchise, 2019).

The franchise agreement contains the features of various types of contracts, such as: purchase, sale, supply, licensing, lease, commission, agency, and labour. In the scientific literature, when conducting the characteristics of the subject of the franchise contract, the specified contracts are often mentioned. Such comparisons with other agreements that are similar in structural or functional terms are due to the lack of special regulation in Polish law.

The franchise agreement must be concluded in accordance with the norms of the national legislation, the laws of the European Community and the requirements

of the Code of Ethics. It is important that it reflects the interests of all members of the franchise network. It concerns both the protection of the franchisor's industrial and intellectual property and the preservation of the image and reputation of the franchise network (Anna Stronczek).

M. Gawroński defines the franchise agreement as an agreement between independent entities, under which the franchisee is directly or indirectly obliged to resell goods that have been bought from the franchisor and to use intellectual property rights and know-how that have been licensed from the franchisor. However, as the author notes it by herself since this definition is too broad, it is better to apply a narrower definition given by the European Federation of Franchising (Maciej Gawroński, 2015).

In practice, the definition given in paragraph 1 of the Code of Ethics (European Code of Ethics for franchising) adopted by the European Federation of Franchising is used. According to this definition, franchising is a system of marketing goods and/or services and/or technology, which is based upon a close and ongoing collaboration between legally and financially separate and independent undertakings, the Franchisor and its individual Franchisees, whereby the Franchisor grants its individual Franchisee the right, and imposes the obligation, to conduct a business in accordance with the Franchisor's concept. The right entitles and compels the individual Franchisee, in exchange for a direct or indirect financial consideration, to use the Franchisor's trade name, and/or trade mark and/or service mark, know-how, business and technical methods, procedural system, and other industrial and/or intellectual property rights, supported by continuing provision of commercial and technical assistance, within the framework and for the term of a written franchise agreement, concluded between parties for this purpose.

The law does not impose any restrictions on the franchisor's organizational form, but the most widespread organizational form in Poland is a limited liability company. Other popular forms of entrepreneurial activity are: general partnership, joint-stock company, the limited partnership and the limited joint-stock partnership. Over the past few years, there has been a significant increase in the number of limited liability companies. This is due to the convenient system of taxation since only the income of the members of the company is subject to taxation, and not the income of the company itself.

Many individuals in Poland choose an individual entrepreneurial activity. Their part accounts for 73% of the total number of entrepreneurs in the private sector. Foreign investors open branch offices in Poland, through the intermediary of which they conduct their business in Poland in the same way as they do in their home countries.

Since more than 85% of franchise networks in Poland are local, the most popular is that type of franchising which does not require a significant initial investment.

The Civil Code does not stipulate for the binding obligation to disclose information before concluding a franchise agreement, as it is provided in most other European countries. In practice, many franchisors do not disclose information or disclose it in very limited terms. It is the potential franchisee who can demand, request, and investigate certain information from relevant sources and evaluate it in terms of equivalence.

However, it is allowed to provide directly in the provisions of the franchise agreement that non-performance of certain actions (for example, disclosure obligations) gives a franchisee the right to cancel the contract and/or demand damages. Otherwise, the general rules of the civil law for compensation are applied, and a franchisee will be obliged to prove the existence of damages in order to claim compensation. Also, according to the general principles of contractual law, one party has the right to rescind a reciprocal contract (for example, a franchise agreement) if the other party fails to fulfil its obligations (section 492 of the Civil Code), or demand that the obligation be performed and that any damage resulting from the default be remedied (section 491, paragraph 1 of the Civil Code).

Since there is no statutory disclosure obligation in Poland, the standard franchise agreement does not usually include any provision for data disclosure. However, the contract, as a rule, contains the provision about the refusal to provide such data, which is an effective means to protect franchisee's rights. So, in the case of non-disclosure of important information or providing false data, which is necessary for the effective business process, the franchisee will have a legitimate reason to rescind the franchising agreement. The franchisee may rescind the contract, even if the information hidden by the franchisor is not substantial. The franchise agreement can be terminated within a year from the detection of the false nature of the information provided.

There is a prescription for the protection of confidential information that may be provided during negotiations in section 72-1 of the Civil Code. So, if, during negotiations, a party makes information available with a stipulation of confidentiality, the other party cannot disclose or submit the same to other persons or use the same for its own purposes unless the parties agree otherwise. In case of non-performance or improper performance of this obligation, the entitled party may demand that the other party remedy any damage or hand over any benefits, which it has obtained.

The civil law of Poland does not provide for essential terms of the franchise agreement. According to section 72 the Civil Code, if the parties hold negotiations in order to execute a specific contract, the contract is executed when the parties reach an agreement on all the provisions, which were the subject of the negotiations, that is, the parties determine the terms of the future

contract at their own discretion. Nevertheless, paragraph 5.4 of the Code of Ethics contains a list of conditions that is advisable to include in the content of a franchise agreement.

The validity of the franchising agreement is not legally binding, as the parties, as it was already noted, are free to agree on the terms of the contract. The maximum permitted duration of the agreement will depend on whether it contains any provisions restricting competition (for example, the provisions on territorial exclusivity). Moreover, the maximum allowed validity of such clauses (if any) will depend on whether the block exemption automatically applies in accordance with the Block Exemption Regulation (BER), adopted in accordance with section 101, paragraph 3 of the Treaty on the Functioning of the European Union (Commission Regulation). Thus, if the franchise agreement contains restrictive provisions, it may be exempted from the prohibition of the conclusion of antitrust agreements if the total market share of competitors in the relevant market does not exceed 5 per cent, or the market share of each non-competing entity in the relevant market does not exceed 10 per cent. This provision is called the *de minimis* principle, but it does not generally apply to franchise agreements, as they usually include provisions aimed at market sharing between the parties. If the *de minimis* principle cannot be applied, the franchise agreement may be exempted from the prohibition in accordance with the BER, which apply only to contracts that do not contain certain types of severe restrictions of competition, and the market share of the franchisor and franchisee in the relevant market does not exceed 30 percent (clause 8 of the BER).

If market shares of the parties to the agreement in the relevant market exceed, or if the franchise agreement contains hard-core restrictions, such an agreement falls under the BER regulation. However, the parties are entitled to apply for an individual exemption if they prove that their franchising network is more profitable than the effect of anticompetitive rules in the relevant market. In this case, the burden of proof lies on the entities (Maciej Gawroński, 2015).

If the agreement contains a clause requiring the franchisee to acquire at least 80% of the corresponding product from the franchisor or its assigned supplier or other terms restricting competition, then the maximum term of such conditions is established within the limits of "safe harbour" of the relevant clause on block exemptions applied. The clause on the automatic application of a "safe harbour" for non-competition clauses (e.g. exclusive supply provisions) may be provided by the parties in the content of the franchise agreement if they hold a market share of no more than 30% in the relevant market. The term of such an agreement is five years or is equal to the duration of the franchisee's rent of premises, which is the property of the franchisor.

In order to protect the franchisor's know-how, the parties may put in the contract the clause on non-competition, the validity of which cannot be more than one year after the termination of the agreement. During this period, the franchisee obliges not to conduct any transactions with goods which are similar to that provided by the franchisee in the premises where the franchisee worked during the term of the contract. If the franchisor transfers to the franchisee know-how, which is not a public domain, then the parties may stipulate for the clause on non-competition for a longer period (Franchise, 2019).

A franchise agreement is a long-term contract, which is concluded for a limited period (from five to twenty years). The civil law provides for two options to terminate the agreement before its expiration: termination upon notice and rescission. Thus, it may be stipulated that one or both parties will have the right to rescind the contract during a specified period. This right is exercised by a declaration being made to the other party (section 395, paragraph 1 of the Civil Code). If the right to rescind is exercised, a contract is deemed not to have been executed. Whatever the parties have already provided is returned unchanged unless the change was necessary as a part of ordinary management. The other party is entitled to appropriate remuneration for the services provided and for using a thing (section 395, paragraph 2 of the Civil Code).

Termination upon notice is applied for termination of contracts concluded for an indefinite period. A contract can be terminated only upon notice *ex nunc*, which means that the notice is valid only for the future and not the past. As a rule, termination upon notice applies only to the relation expended in time. Generally, there is a notice period after which the agreement terminates (it might be a contractual, statutory or a customary term period). If such period is not stipulated, the contract is considered to be terminated immediately on receipt of the notice (Maciej Gawroński, 2015).

Rescission is the means to protect parties' interests from the breach of contract terms. Thus, if one of the parties defaults in the performance of an obligation under a reciprocal contract, the other party may set an additional period for its performance with the sanction that if the specified period passes to no effect, it will be entitled to rescind the contract.

If the right to rescind a reciprocal contract is stipulated for non-performance of an obligation within a strictly specified period, the entitled party may, if the other party defaults, rescind the contract without setting an additional period. The same applies where the performance of an obligation by one of the parties after the period set would be meaningless to the other party due to the nature of the obligation or due to the purpose of the contract intended by it and known to the defaulting party.

That's why it is recommended to include the provisions on the conditions of franchise agreement termination to avoid the risk of a dispute between the parties.

3. Conclusion

Based on the foregoing, we can conclude that there has been a rapid development of franchising activities in Poland in recent years and its popularity is constantly increasing. Most franchise networks (about 85%) are Polish, but foreign franchises are also developing successfully in the market of this country. Almost 100 new franchising networks and several thousands of licensed companies are founded every year. Foreign investors are attracted by a stable economic situation and lower, compared with other European countries, labour costs and modest business expenses.

Relations between the franchisor and franchisee are regulated by a franchise agreement, which in Poland belongs to unnamed treaties, that is, those which are not provided for in the Civil Code of the state. Therefore, a franchise agreement is concluded in accordance with the norms of the national legislation, the laws of the European Community, and the requirements of the Code of Ethics.

There is no legally binding obligation to disclose information before concluding a franchise agreement in the Civil Code, as it is imposed in the legislation of most European countries, but such an obligation could be stipulated in the provisions of the treaty itself. This is an effective means of protecting the rights of the franchisee in the case of non-disclosure of the important information or providing false data by the franchisor.

Polish civil law does not also provide for essential terms and conditions of a franchise agreement, so the parties determine them at their own discretion in accordance with the recommendations provided in the Code of Ethics.

The validity of the franchise agreement is not legally determined; however, the maximum allowed duration of the contract will depend on whether it contains any provisions restricting competition.

A franchise agreement is a long-term contract, which is concluded for a limited period, or for an indefinite period. The civil law provides for two options to terminate an agreement before its expiration: termination upon notice and rescission. It is recommended to include in the contract the provision on the conditions of franchise agreement termination.

The franchise agreement can be renewed by the mutual consent of the parties. In the case of franchisor's refusal to continue cooperation, a franchisee does not have the right to demand compensation. Theoretically, a franchisee could potentially claim unjust enrichment or breach of principles of community life, but practically it would be very difficult to prove (Franchise, 2019).

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INSTITUTIONAL SUPPORT FOR ATTRACTING INVESTMENTS IN THE AGRARIAN SECTOR OF THE ECONOMY IN THE CONDITIONS OF INNOVATIVE DEVELOPMENT

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Abstract. Institutional dynamics refers to understudied processes both in economic theory and in economic practice. There is a lack of systematic knowledge on the composition, structure, and functioning of the basic socio-economic institutions exactly of the investment process, therefore, the *purpose* of the paper lies in the study of institutional support for attracting investments in the agrarian sector of the economy. *Methodology.* The theoretical and methodological basis of research is the dialectical method of cognition and systematic approach through which there are theoretical and methodological foundations of strategic innovation institutes of the agricultural market. The *results* showed that the institutional environment of investment provision of the agrarian sector of the economy includes, on the one hand, agricultural producers with relevant on-farm structural units, managers, professionals, organizers of production and economic processes; in rural areas; local authorities and government; and on the other, a set of functionally competent institutions (legal, scientific, educational, informational, financial, controlling, deliberative, etc.). Each of these institutions has a corresponding purpose, socio-economic relevance, and is an integral part of this system. *Practical implications.* The studied institutions create incentives for the development of science and education, encourage the mobility of production factors, facilitate the transfer of scientific and technical information and the introduction of new technologies, promoting entrepreneurship and innovation. Conversely, inefficient institutions reduce the potential level of well-being, reduced reliability assurance of property rights and enforce contracts. *Value/originality.* The increasing importance of the institutional environment of investment provision of the agrarian sector of the economy gives an opportunity to define the latter as an important intangible factor in the development of agriculture and society as a whole, which creates the necessary conditions for transformation and development of the agrarian sector. The formation of a modern institutional environment should include a system of regulators, which would provide favourable conditions for attracting domestic and foreign investment, further structuring of the economic complex of the agrarian sector, the reduction of regional asymmetries of socio-economic development. How full the institutional environment of individual units of the investment will be depends on the realization of economic and social development priorities of the Ukrainian village.

Key words: institutional support, institutions, investing, investment, agrarian economy, agriculture.

JEL Classification: E11, G23, O17, G20, P33, E22, N50, O13, Q10, Q12, Q19

1. Introduction

With the rapid development of socio-economic relations in the country, an indispensable condition for increasing production efficiency, including in agriculture, is its institutional support, which mainly determines the performance of economic entities that

operate in the economy. Therefore, the analysis of the status and the dynamics of institutional support becomes an integral part of economic systems management, including acquisition and management of investments. The acute need for such investments to guide them in the agrarian sector of Ukraine is caused

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by the shortage of own financial resources. Investment policy and effective investment management are an important prerequisite, which can solve many problems in Ukraine. This issue becomes relevant due to the high importance of the institutional environment for the development of the provision of investment resources for agricultural producers.

Currently, in agricultural production, there is a tendency of reduction in volumes of financial resources. Most agricultural enterprises were faced with the problem of the accumulation of private capital for the implementation or modernization. The actual life of most fixed assets significantly exceeds the standard. The processes of reproduction and renewal of the material-technical base in the village almost stopped. Now in agriculture, there mainly operates a large number of investments that are little attractive, have outdated production capacity, able to produce high-quality products in accordance with the requirements of international standards.

In market conditions, one of the main problems of the agricultural sector of Ukraine is to attract investment resources needed to modernise the sector and ensure on this basis production of competitive products. However, due to the significant number of unprofitable enterprises and low level of rate of profit of agricultural production compared to other sectors of the economy, the slow turnover of productive capital, due to the disproportion between production time and working period, insufficient protection of investor rights is low level of investments in the agrarian sector of the economy, which hinders the process of modernization and increase of production volumes of agricultural products. In these circumstances, the need arises to justify targeted public policy measures aimed at the intensification of investment processes in the industry, which will create conditions for the formation of food security of the state.

Attracting investment in the agricultural sector can be stimulated or constrained by the institutional environment that has formed, and a system of institutions, which develops in it.

Analysis of recent researches and publications shows that problems of the institutional environment are considered in the works of many well-known domestic and foreign scholars, namely, (Veblen, 1984), (North, 1997, 2000), (Shpykuliak, 2012), (Shebanin, Shebanina, 2011) and others.

However, a lot of questions on the institutional environment of investment support for agriculture, in particular, the influence of formal and informal institutional factors on the development of investment in the agricultural sector of the economy are studied.

Therefore, the scientific search and study of the mechanisms of changes to existing and the introduction of new formal and informal institutions of investment, developed over a long historical period, are ongoing challenges for science.

The goal of the article lies in the study of institutional support for attracting investments in the agrarian sector of the economy.

Theoretical and methodological basis of research is the dialectical method of cognition and systematic approach through which there are theoretical and methodological foundations of strategic innovation institutes of the agricultural market.

2. Institutional component of agricultural policy in the agricultural sector

Attracting investment is the most important factor of economic growth of any country and improving the welfare of the population. In the agricultural sector of Ukraine for the development of agricultural production, investment activity is a means of ensuring food security of the state, a guarantee of industry development and ecological environmental protection. Active measures at the state level should provide financial protection for agricultural production. At the heart of this must be the state financial protection and supporting agricultural producers with the use of various forms of state influence on the development of the agricultural sector.

In modern conditions, theoretical developments that allow taking into account changes in the institutional structure of the economy with the aim of increasing its effectiveness acquire a priority. The necessity of taking into account institutional factors is that they determine the level and additional opportunities to accelerate socio-economic development.

The institutional component is included into a number of the basic preconditions for the formation and development of investment policy in the agricultural sector of the economy.

And this is logical, because the applied nature of attracting investment is manifested through the interaction of very specific objects of the institutions, which are, on the one hand, agricultural producers – agricultural enterprises, farms, private farms, agricultural firms, agricultural holdings, etc., and other state institutions, organizations, research and educational institutions, banks, financial and commercial structures, etc. The relationship between them in the process of implementing investment activities develops under the influence of economic, organizational, legal, and other factors in the macro environment, and directs the progress of activities carried out, occurs through the implementation of economic relations between stakeholders in the context of society's traditions, rules, norms, laws, mentality and worldview of the people.

In scientific literature, the term "institutional support" is interpreted in two aspects. On the one hand, as "institutions" – that take into account the customs, traditions, norms of behaviour, which are accepted in society, on the other hand as "institutions" – play laws, legal norms, social organizations, and the like.

Institutes and institutions are phenomena that invariably accompany the development of economic systems. Their existence is a consequence of bounded rationality of man, which, a priori, has no opportunities and time for full, comprehensive analysis and justification of possible strategies. The emergence of institutes (institutions) is due to the attempt to save efforts on the acquisition and processing of information.

The terms "institute," "institution" come from the Latin words *institutum* (installation, implementation) and *institutio*, *institutiones*. In Latin, there is clearly discernible kind of semantic boundaries between these cognate concepts.

Further terms and *institutum*, *institutio* were perceived by many languages but researchers have begun to pay special attention to this notion only in the early nineteenth century. Justifying the essence of institutions, the scientists determined the scope of their competence in general and political institutions in particular. They focused on the fact that political institutions serve such a fundamental life needs, like security and social order. It is the goal of survival of the society in terms of its evolution gave rise, according to Herbert Spencer, the necessity of formation of the conciliation and coordinating a social subsystem – features regulatory Institute, which was experiencing a political institution.

Contemporary works of Western authors clearly differentiated institution and institute and, although complete agreement on the definition of the essence of the "institute" and "institution" among them does not exist. Institutions are given the importance of symbolic, conventional, semiotic values and practices, strengthening and playback with the help of such social organizations as institutions (particularly political). D. North also clearly delineates the concept of institutions and organizations (institutions): "In this study, introduced a significant difference between institutions and organizations... Conceptually, what must be clearly differentiated are the rules from the players" (North, 2000).

Institutions according to D. North, are "the structures of the human brain" (North, 2000), "institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic" (North, 2000), "range ban individuals something to do and the conditions under which they sometimes are permitted to engage in certain activities... consist of formal written rules as well, of course, unwritten codes of conduct that underlie and supplement formal rules" (North, 2000). D. North divides institutions into official (formal) and unofficial (informal). The first is legislation of a particular country; it enshrines the rules and regulations. Informal institutions are the customs, moral norms, and other unwritten rules of conduct.

A different situation is observed in post-Soviet countries. For example, in the sociological and economic traditions of Russia, there has established a kind of unity of these key concepts institutional analysis "institute" and "institution." Institutions are a phenomenon of both economic and non-economic order – the state, law, social organization and structure, customs, family and the like.

As the researchers note, was the actual loss of a specific category, which is "Institute." But in the studies on the institutional sphere, there is a semantic ambiguity of the concept of the institution as a norm and the Institute as an organization. The reason for the reduction of categorical apparatus of institutionalism in the Russian language researchers believe the consolidation of the term "Institute" (instead of "organization") in the process of erroneous translation of fundamental T. Veblen's Theory of the Leisure Class in its subtitle said it was about the institution (An Economic Study of Institution) and not institutions, as it was translated (Veblen, 1984).

The tradition of ignoring the term "institution" or its inadequate use during the translation from English or Russian language is also common in Ukraine. Although the title of the book of the founder of neo-institutionalism, D. North, which is printed in Ukrainian, it sounds clear: "Institutions, Institutional Change and Economic Performance" (North, 2000). Without knowing it, most of the domestic authors copy references to the Russian edition of this book entitled "Institutes, Institutional Change and Economic Performance."

The curvature of the methodological apparatus greatly simplifies the process of presenting results of such studies, because all phenomena are simply combined under a single notion of "institution" without a thorough theoretical analysis of their essence.

Clearly distinguishing between the concepts of institutions (rules of the game in society) and institutes, researchers in the latter are political bodies (state authorities and local self-government, political parties, etc.), economic bodies (firms, households, unions and the like), public, educational, religious organizations and the like.

According to V. S. Shebanin, institutional education is divided into production (the company), regulatory (enterprises, government, education), and regulatory-restrictive (legal acts) (Shebanin, Shebanina, 2011).

The conviction O. G. Shpykuliak, economic institutes and institutions should be considered as formed by society and the state the relevant rules, norms, traditions, institutions; education, such as property, national economic mentality, as well as the legal structure, institutions, organizations – institutions that consolidate and direct human interaction in the economy (Shpykuliak, 2012).

Institutions are positioned as rules of the game or "regulators" and the market actors determine their level

of adequacy of processes, which are subject to regulation. Economic Institute is an organization, institution, enterprise, the rule or standard of behaviour, operated and control system, the agreement and contract and the like. Based on well-known scientific tenets and practical life principles, it's safe to say that every type of socio-economic system in its development managed by the relevant institutions (rules and norms) and institutions (structures that emulate them), including economic. For example, the market and the command economy functioned under the influence of the radically different institutional formations, especially in the formation of the motivational field of activity of economic agents. This belief shaped by history and nature of the consequences of institutional interactions. The model of the institutional system, forms and methods of management of the economy determines the behaviour of its participants, and thus forms the perspectives of effects on all levels of social life (Shpykuliak, 2012).

3. Impact of the real economy on the institutional environment

The real economy is developing not just under the influence of a particular set of institutions or through the functioning of particular institutions and within their specific structured set, which is determined by the specifics of the country. Institutions and institutions shape the institutional environment of the economy, which is characterized by a certain institutional structure. The latter links the various elements and subsystems, determines the nature of their interaction and thus lays the Foundation for the "solidarity" of functioning and development.

In the agricultural sector, there is the need to create an institutional structure that will provide exactly the competitive rules of the game, the regularity of transactions, the objectivity of economic laws, and the elimination of the dysfunctional market (Shebanin, Shebanina, 2011).

In economics, the institutional environment is considered as a set of fundamental political, social, legal, and economic rules that determine the scope of human behaviour and form the basis for production, exchange, and distribution. Thus, the institutional environment is clear, an ordered set of institutions that determine the framework conditions of functioning and development of economic entities (Shebanin, Shebanina, 2011).

The main precondition for the effectiveness of the institutional environment have effective institutions as the totality of political and socio-economic institutions determines the guarantee of fulfilment of contractual obligations by all economic agents and promotes the full utilisation of productivity of production factors underlying economic growth. These effective institutions ensure easy adaptability of the political-economic system to new conditions and

opportunities that arise due to scientific and technical progress. Flexible institutions create incentives for the development of science and education, encourage the mobility of production factors, facilitate the transfer of scientific and technical information and the introduction of new technologies, promoting entrepreneurship and innovation. Conversely, inefficient institutions reduce the potential level of well-being, reduced reliability assurance of property rights and enforce contracts.

The necessity of activation of investment activity is that agrarian sphere of the economy of Ukraine is unable to develop without the involvement and effective use of investment.

Accumulating entrepreneurial, public, and mixed capital, providing access to modern technology and management, investments do not only contribute to the formation of national investment markets but also enliven the markets for goods and services.

Successful investment activity is possible under the condition of the creation of a favourable institutional environment, in which investment processes are forming the set of all macro- and micro factors that affect the decision of investors to invest. The aggravation of problems in the agrarian sector of the economy is largely due to the lack of investment support for modernization, reconstruction and technical re-equipment of agricultural enterprises, as well as the reproduction of their resource potential. This is due to the fact that it was too different and narrowed the range of sources of investment of large and small agricultural producers.

Improving the institutional environment of investment provision of the agrarian sector of the economy and diversifying sources of investments of agricultural enterprises require new methodological approaches in view of the increased European integration vector of development of our country and worsening of a range of economic and environmental problems of economic development of the resource potential of the agrarian sector of the economy.

Institutional analysis of investment activity in the agrarian sector of the economy involves the description of institutions and their interaction as a system and evaluates the system. By the main components of the institutional environment of investment provision of the agrarian sector of the economy (Figure 1), we can distinguish three main groups of institutions.

4. The methodology of research of institutes

The scientific literature recognizes the importance of institutions and the complexity of the methodology of their study. In the opinion of O. M. Moroz, identification of the presence, nature, and role of any institution should cover the subjective and objective description of the phenomena that are investigated. Each institution can be characterized by a spectrum of such features (Moroz, 2006):

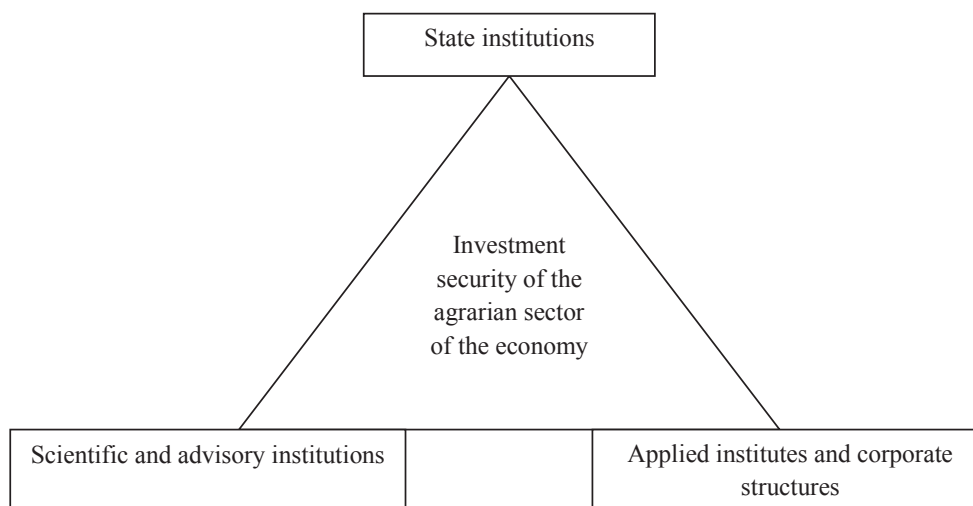


Figure 1. The main components of the institutional environment of investment provision of the agrarian sector of the economy

Source: developed by the author

1. The name of the Institute, the scope of activities of the facility, which deals with the institution, a general description of the nature of the Institute; 2. The essence of the basic norms of the Institute; 3. Real actors subject to the institutional norm;

4. The potential subjects, which may introduce an institutional norm; 5. The temporary identity of the Institute, the time and conditions of occurrence, validity period; 6. The degree of formalization of the Institute (formal or informal), consolidation and compliance with the legislative and regulatory base; 7. The mechanism for monitoring compliance with the institutional norms; 8. The level of activity of the Institute (macro-, meso-, microlevel); 9. The level of regulativity, that is, how institutional norms are based on mechanisms regulation of such actions; 10. The level of constructiveness, that is, how these institutional norms contribute to the development, improvement, modernization; 11. The system of cooperation with other institutions; 12. The capacity of the Institute, availability of mechanisms for the support of the Institute (level of public perception and support); 13. The list of (simulation) of possible situations or phenomena that can be explained according to the Institute; 14. Mathematical or another device that can be used as tools of analysis; 15. Evaluation of expediency/efficiency of the institution (Moroz, 2006).

In more detail, the main institutions of the institutional environment of investment provision of the agrarian sector of the economy are represented in Figure 2.

5. Findings

The institutional environment of investment provision of the agrarian sector of the economy includes, on the one hand, agricultural producers with relevant on-farm

structural units, managers, professionals, organizers of production and business processes; rural; local authorities and self-government; and on the other, a set of functionally competent institutions (legal, scientific, educational, informational, financial, controlling, deliberative, etc.). Each of these institutions has a corresponding purpose, socio-economic relevance, and is an integral part of this system.

6. Conclusions

Thus, the increasing importance of the institutional environment of investment provision of the agrarian sector of the economy gives an opportunity to define the latter as an important intangible factor in the development of agriculture and society as a whole, which creates the necessary conditions for transformation and development of the agrarian sector. The formation of a modern institutional environment should include a system of regulators, which would provide favourable conditions for attracting domestic and foreign investment, further structuring of the economic complex of the agrarian sector, the reduction of regional asymmetries of socio-economic development. How full the institutional environment of individual units of the investment will be depends on the realization of economic and social development priorities of the Ukrainian village.

Intensification of investment activity is not only the main condition for the withdrawal of the agricultural sector from the deep crisis but becomes the most important determining factor of its further development. It requires not only reforming the social order in the village by institutional changes that had priority in the initial period of agrarian reform, and

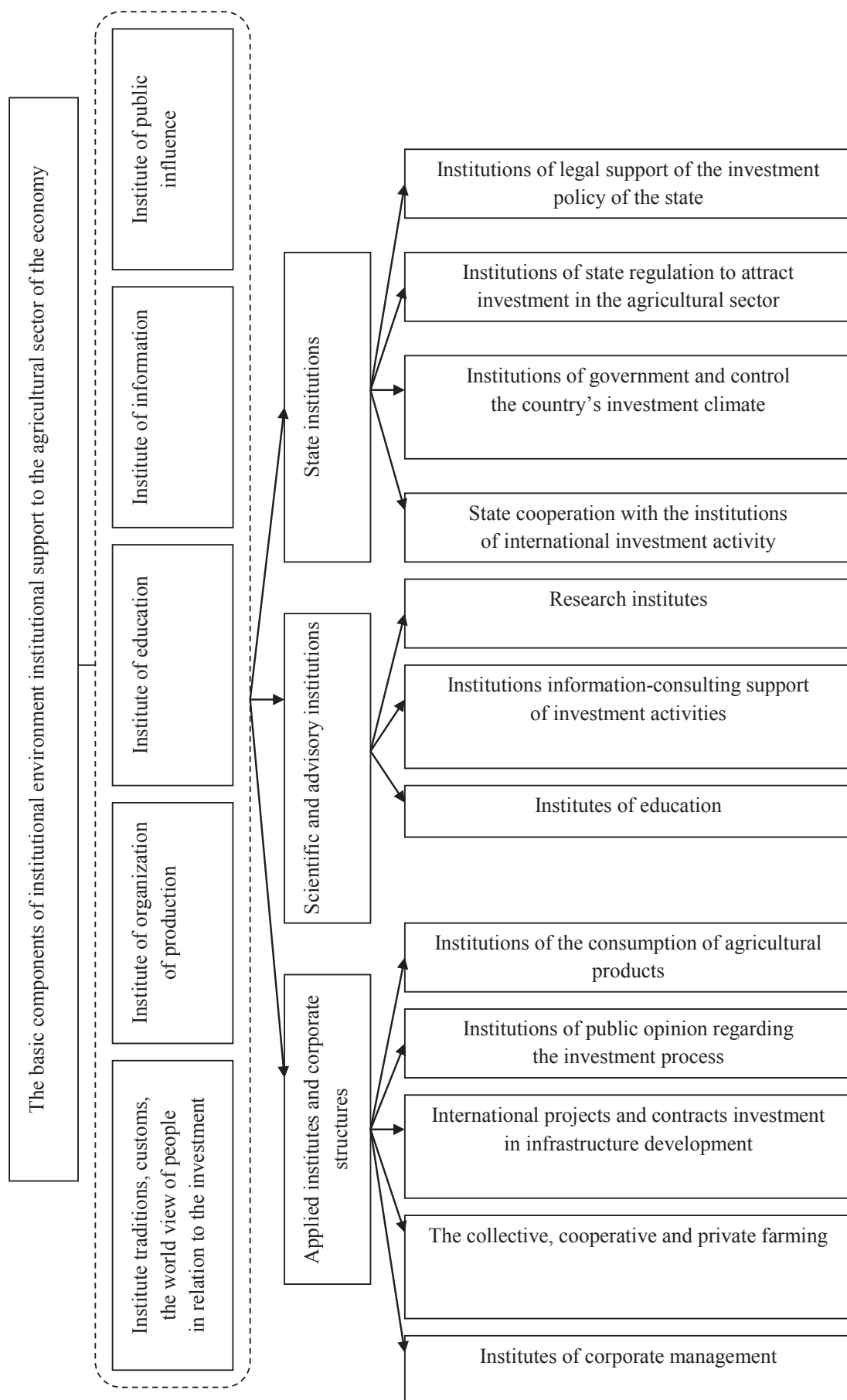


Figure 2. The institutional environment of investment provision of the agrarian sector of the economy

Source: developed by the author

the involvement in the agricultural sector large-scale investment. Creating prerequisites for mass investment in the agricultural sector should be the most important element of the strategy of state agrarian policy at the present stage. First of all, it is necessary to provide at the state level creating a favourable, cost equivalent market environment, in which the economy becomes receptive to investment, and entities appear and expand investment opportunities for renewal of fixed capital and its increase at the expense of own and attracted means, including foreign capital.

In our country, much is now being done in order to significantly intensify the process of attracting investments, more needs to be done in the future; however, investors are well aware that the creation of an attractive investment climate with a stable, consistent, and transparent legal framework takes time. Many potential investors are ready to strengthen its presence and activities in Ukraine if the reform processes dynamically continue and it is seen that the state, represented by central and local executive authorities is promptly and purposefully working to address these deficiencies.

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INSTITUTIONAL STRATEGIES OF SYSTEM SECURITY OF TECHNOLOGICAL & INNOVATION SYSTEMS

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Abstract. *The purpose of this study* is to consider the main aspects of system security providing institutional concept within the technological & innovation systems research methodology development through institutional innovations. In this paper, we will consider how the new evolutionary institutional theory of economic systems in the context of the space-time approach can help in organizing strategic management of development path of the innovation system, increasing system security, and effectiveness of its activities through the balance of system structure. *Methodology.* The scientific novelty of the research and the solution of its tasks deals, first of all, with the application of the non-system approach, which allows one to consider the factors and results of functioning of such complex economic systems as innovation macro projects, innovation processes, institutional and informational environments, etc. within the framework of providing national security. Involvement on a systematic basis of spatiotemporal analysis allows us to consider in the interrelation processes the distribution of flows of innovation resources and functions, on the one hand, and the distribution in time of similar flows. To solve the tasks of research, the classical scientific methods (analysis and synthesis, logical generalization, analogies, comparative comparison, and grapho-analytical methods), and specific methods of high technologies economy and innovation management were used. *Results.* As a result of the study, the features of the systemic socio-economic patterns of the functioning of innovation system institutions and the mechanism of management of innovation development in the conditions of modern global technological transformations have been determined. In the future, this makes possible the substantiation of promising areas of state regulation (participation) aimed at activating innovation processes in the economy according to the priorities related to scientific and educational, cluster and network development, and the development of a set of models for the harmonization of the system of priorities of national security and sectoral priorities of innovation development. Using the gained knowledge in practice will help to improve the state of national security, resource saving, improve conditions, and increase labour productivity, as well as the transition to sustainable development of the national economy. *Practical implications.* Systemic coordination of innovation components of state programs, stimulation of innovation activity, involvement of financial strategies in the innovation economy, expansion of international cooperation and activation of demand for high-tech products, increasing the effectiveness of innovation development programs of companies, and launching of national projects have been proposed as the objectives of forming institutional innovations. The proposed institutional and technological design methodology provides for the selection of institutional tools and scaling of the most effective development tools. *Value/originality.* The proposed network mechanisms for systemic security ensuring provide the improvement of implementing innovative development programs for the largest companies with state participation; further development of priority technological platforms and innovation networks; harmonization of technological priorities and projects formed within the framework of technological platforms, with the tools of state strategies.

Key words: system security, national security, national innovation system, technology, analytics, networks, institutions.

JEL Classification: C51, O14, O32

1. Introduction

In modern conditions, innovative development is critical for both business and society as a whole. At the same time, there is a necessity to improve the

efficiency of state initiatives in the sphere of support and development of innovations and the formation of an institutional basis for systemic innovation policy. We can confidently state that in the development of these

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initiatives, insufficient attention was paid to researching the dynamic properties of innovation systems and analysing their management capabilities.

As a methodological base for these purposes, we propose to consider the system theory, especially the system sustainable development theory, which is focused on the searching for opportunities to reorient the system to a development path that promotes a constantly growing rate of growth of opportunities to meet the needs of society. Sustainability is the main and only criterion for system development, ensuring its integrity and further development. The stability of the socio-economic system is associated with the ability of the system to function steadily, to develop, to maintain movement along the planned trajectory with self-development.

Based on these ideas, we clearly see the role of the innovation system in sustainability ensuring. At the same time, innovation factor and its system nature should be considered both as a factor of ensuring the sustainability of development and as a factor of economic shocks that can displace the development trajectory.

The processes of globalization and new technological paradigm formation have led to the emergence of a whole range of new economic, social, and political-legal problems of the nation's socio-economic development. In this context, sustainability can be considered in the context of developing adaptation mechanisms with innovation nature, as well as a set of measures, the implementation of which will enable the innovation system to perform functions and achieve the nation's development goal under normal conditions and in the presence of disturbances of endogenous and exogenous factors.

Successful implementation of these tasks requires the creation and development of innovation system that will support innovation at all stages of the innovation cycle, which is a key backbone factor in the socio-economic development and overcoming the current technological backwardness in the number of industries. At the same time, the formation of an institutional environment for the development of the balanced sector of research and development and effective national systems, which ensure technological modernization of the economy and increase its competitiveness on the basis of advanced technologies and large-scale investment in human capital, is a key task.

Thus, the formation of systemic innovation strategies within the framework of evolutionary institutional theory is a relevant scientific and practical task.

So, the purpose of this study is to consider the main aspects of system security providing institutional concept within the technological & innovation systems research methodology development through institutional innovations.

In this paper, we will consider how the new evolutionary institutional theory of economic systems in the context of the space-time approach can help in

organizing strategic management of development path of the innovation system, increasing system security and effectiveness of its activities through the balance of system structure.

2. Review of institutional aspect of innovative development

Modern analyses of technological & innovation systems are focused on emerging technologies often in early phases of development (Reichardt, Rogge, Negro, 2017; Jacobsson, Bergek, 2004). Typical for these early stages is the existence of a number of failures hindering the development and diffusion of new technologies so that it is particularly hard for them to compete with established technologies. For overcoming these failures and allowing the new technologies to become market-ready, government intervention is needed.

According to the models of the real business cycle (Long, Plosser, Prescott), technological shocks directly affect the economy and, in the result of supply fluctuations, the nation can face a number of changes in socio-economic processes. Technological shifts can be considered as the most important type of economic shocks causing fluctuations in the level of business activity. The models are based on Schumpeter's ideas: capitalism is characterized by waves of "creative destruction," during which the introduction of new technologies constantly pushes existing firms out of business. Analysing the modern trends, we can note that the same conclusion could be made also for the institutions (e.g. e-government can replace the traditional institutions with communication functions).

In the 1970s, the followers of Veblen have proclaimed technology and industrialization the driving forces value and source, and hierarchical structures as an opposite to the new forces. The followers of Commons (socially legal institutionalism direction) have interpreted institutions as the way of choosing between the technological alternatives.

At the same time, technological ideas of comparative advantages theory emphasize the fact that the international economy has also formed a critical direction in the study of international labour division, related to the scientific and technological revolution and technological progress. It was also revealed that "accelerated development" (based on modern Western technologies), recommended by experts for less developed countries, often leads to a decrease in the standard of living of a significant part of society. This can be explained by the institutional differences and their impact on economic strategies. Also, it is necessary to take into account the possibility of a technological gap and losing competitive advantages as a result of slowing down the rates of full cycles of innovative development.

As a result, we face the question arises of developing the new foundations for institutional development

strategies. In particular, the evolution of organizational forms is developing towards the widespread application of informal multidimensional self-organizing associated corporate entities, which meet the requirements of growth dynamics and complexity of new technologies and globally integrated production (Mizjun, 2014).

Analysing dynamics of business associations and state in Latin America, private sector organizations in China etc., Doner (2010) affirms the vulnerability approach by the demonstrating how various types of crises precede and stimulate of institutional changes. Explaining the institutional innovations implementation, the author argues that they require such situations, in which leaders (public or private) observe themselves as highly vulnerable to internal pressures and external threats alone with the lack of means to address them.

Research of Schot & Steinmueller (2017) considers post-World War II growth experience that continued with relatively minor interruptions until the oil shocks of the 1970s and 1981 serious recession have intensified the competition between countries and highlighted differences in national industrial innovation and productive performance. These differences were caused by the different institutional innovations within the national innovation systems development. In this situation, we face the task of facilitating the emergence and stability of institutions, as well as the possible role of the state within the institutional evolution processes (Hodgson, 2002).

In the study (Nelson, 2002), the authors have noted that institutional structure at any time has a profound effect on the technologies that are in use and are being developed. Theoretical review confirms that increasingly evolutionary economists are coming to see institutions as moulding the technologies used by society, and technological changes itself.

As a result of understanding these aspects in the study (Bogatova, 2009), the appearance of innovation theories in the 1990s was noted. These theories are oriented on the practices of promoting the high-tech industries and models of socio-cultural assistance for the scientific and technological development, formed on the basis of economic cycle theories and socio-economic development concepts. In the latter (including the theory of the cycle), the role of innovations as a factor in economic dynamics is manifested in the following points:

- 1) technological dynamics (innovations in the real sector of the economy) lies in the basis of economic cycles;
- 2) there is a certain dependence of employment dynamics on the dynamics of new high-tech industries development;
- 3) the role of institutions plays a great role in the development of innovation activity; they are treated both as a brake for innovations and as a method of choice between technological alternatives;

- 4) there is an objective necessity to strengthen the role of the state in connection with innovation development (monitoring of innovations, planning, and forecasting);
- 5) in the innovation economy, disruptions occur due to a lag in the development of a new institutional structure;
- 6) the organizational forms and sizes of firms are largely determined by the technology used.

The guiding idea of research (Werle, 2011) deals with the fact that technologies and institutions are changed in an interactive process, which is mediated and influenced by activities of individual and collective actors. Evolution of technical innovations proposed to be considered as a result of coordinated efforts whereby the mode of coordination can take the institutional forms of market, network, and hierarchy. Also from an institutional perspective, it is important to note that innovation networks link different institutional sectors with each other.

Saviotti (2005) underlines that “innovations are created by the system, constituted by different parts or components interacting and determining the final outcome”. By stressing mainly the interactions between technologies and institutions, the author assumes that these interactions are much stronger and more important in determining the behaviour of the system.

Under the conditions of new technological paradigm and appropriate changes and challenges, according to (Golichenko, 2012), the main direction of technology and innovation policy should focus on creating conditions and incentives for mutual orientation of public sector of R&D and industry, establishing equal cooperative linkages between them, including innovative development resources management.

In the study (Potts, 2017), it is highlighted that because of distributed information and fundamental uncertainty, an efficient institutional context for innovation economic organization in its early stages is often that of common pool resource. The theory of innovation commons comes from studies of Hayek, Williamson, and Ostrom and presents an innovation problem as combined knowledge problem, implicit contracting problem, and the problem of collective action management. In the study (Potts, 2016), the new economics of innovation based on such points of innovation commons approach was formulated:

- 1) it is based around market process theory (economics of entrepreneurship, economics of institutions). Basic idea – innovation problem is actually an entrepreneurial discovery problem combined with a collective action problem (solved with institutions).
- 2) innovation problem: rules to coordinate knowledge for value discovery;
- 3) examples: coordination the processes between the new technology and emergence of industry (e.g., 3D-printing, blockchain etc.);
- 3) implication: new technology is not a new industry; new industry emergence requires governance

(i.e. cooperation and rules, these eventually become industry groups or associations).

The study (Golichenko, 2012) notes the need to find a balance between the processes of cooperation, competition, and standardization. To increase the coherence of innovation resources, it is necessary to create institutional conditions.

Research (Saviotti, 2005) points out the fact of technologies and institutions co-evolution and considers innovation systems as an example of systems that “is of collections of parts (or components) interacting in such a way that in presence of environmental variations the system adapts while preserving its structural identity.” In this context, the different institutional configurations or compositions can be considered within the specific structural features.

To identify the trajectories of institutional transformation, the concept of innovation system foresight, which includes mobilizing of joint actions to improve an innovation system performance with the ultimate goal of improving desirable socio-economic performance, can be used (Andersen & Andersen 2014). In (Piiirainen, et al, 2016), it was noted that foresight enables mutual understanding of key priorities, goals, and values and makes a connection between innovation policy and important social issues. So, an output of innovation system foresight can be considered within the consensus and coordination actions. It can be more-or-less jointly constructed statement about future priorities, actions, goals, visions, which leads to action as the collaborative process, resulting in new actions and initiatives.

Experts of Deloitte (Hagel, Seely Brown, 2013) underline that “institutional innovation (redefining the rationale for institutions and developing new relationship architectures within and across institutions to break existing performance trade-offs and expand the realm of what is possible) allows organizations to re-architect themselves to scale learning and generate richer innovations at other levels, including products, business models, and management systems.” Research also deals with the learning effects, i.e. new institutional architectures have the potential to scale learning so that everyone learns faster by working together. Experts note that economic actors no longer deal with static resources in the network but create an environment, in which participants learn faster as a result of participation in the network. Within this networks, the scaling relationships (in addition to short-term transactions, institutional platforms that focus on building longer-term relationships are created) and scaling learning (realizing the longer-term opportunity to evolve institutional designs to accelerate learning among a growing number of participants) effects can be successfully established.

Allen & Potts (2016) have proposed an alternative theory, which identifies the institutional origin of new technologies further back in commons when

self-organizing groups of technology enthusiasts develop effective governance rules to pool distributed information resources. The study (Egbetokun, et al., 2017) has concluded by proposing that for innovation systems theory to remain relevant in the near future there has to be a shift from systems to networks, i.e. network of actors within the same element and across elements.

Considered researches prove that institutional transformation and institutional innovations can be viewed as a tool for a system of technological & innovation systems but this aspect requires further studies.

3. Proposed methodology of system security of innovation system providing analytics

The scientific novelty of the research and the solution of its tasks deal, first of all, with the application of the non-system approach, which allows one to consider the factors and results of functioning of such complex economic systems as innovation macro projects, innovation processes, institutional and informational environments, etc. within the framework of providing national security.

Involvement on a systematic basis of spatiotemporal analysis allows us to consider in the interrelation processes of the distribution of flows of innovation resources and functions, on the one hand, and the distribution in time of similar flows.

To solve the tasks of research, the classical scientific methods (analysis and synthesis, logical generalization, analogies, comparative comparison, and grapho-analytical methods), and specific methods of high technologies economy and innovation management were used.

Also, the following specific methods were used to determine the objectives of innovation communications:

- adapted decision-making methods based on optimization of performance indicators;
- methods based on the analysis of schemes for the strategic development of innovation systems and intersectoral high-tech complexes;
- methods of searching for innovative ways of development and methods of integrated economic analysis of development policy.

The fundamental principles of purposeful management of institutional dynamics within the framework of development strategies require constant research, as in the current conditions the situation in the innovation sphere is constantly changing. This requires identifying pressing problems and determining the prospects for its development in the conditions of technological changes. So the proposed methodology allows combining the system security strategy (Kudrina, Omelyanenko, 2018) and the nation's development prioritization (Prokopenko, Omelyanenko, 2017).

4. Innovation aspect of institutions and interactions development (Industry 4.0 case)

The urgency of considering the transformation of institutions in innovation aspect is caused by the fact that the world is on the verge of the Fourth Industrial Revolution, which leads to the restructuring of economic processes, and as a consequence, economic growth and competitiveness of the leaders. According to PwC experts, industrial manufacturers from around the world plan to invest \$4.0 billion annually into the development of Industry by 2020.

Recognizing the importance of ongoing developments in the field of system security, it should be noted that systematic research devoted to ensuring national security in the new conditions of innovation development has not been carried out so far. This is especially true in the processes of ensuring the interconnection of national security, innovation activities, and institutions, the formation of the concept of national innovation security, and its implementation in practice.

Talking about the security issues, the main reason for the critical (sensitive) dependence of the economies of developing countries on the external factor is the dysfunctionality of economic and innovation policies. It can be regarded as a condition, in which there are insufficient power and means to identify threats, to develop an algorithm for their disposal, and to find the appropriate resource. This is due to the fact that at all levels of the system, there are not generated biased strategies for the future to achieve the common desired for all economic actors and institutions.

From the point of system security, the national security should be considered not only as a condition for the protection of national interests but also the availability and the possibility of using instruments of influence on economic and innovation processes to ensure long-term social welfare. Thus, there is the possibility of developing tools for creating an effective system of people-to-people relationship and governance, aimed at innovation, a minimal conflict of interest, which will provide maximum opportunities for self-realization.

In this context, we will particularly highlight the study of Harmon, Stevens & Swim (1991), which can be considered as a fundamental work that reveals the interrelationships between national security and innovation with an appropriate financial strategy.

Also, the analytical report of the National Science and Technology Council of the United States (2016) (A 21st, 2016) is particularly useful for defining the strategic guidelines for state security policy, which provides an opportunity to review the example of a systematic analysis of the impact of innovation on US national security and the identification of relevant strategic aspects, taking into account the active interaction between the institutes.

So in the United States, innovation policy is seen as a coordinated, state-funded initiative to mobilize national resources to accelerate technological change and maintain leadership in global competition. This is realized through the mechanisms of institutional interaction. In these conditions, developed countries are faced with the issue of developing national innovation strategies since the new technological revolution represents a chance for them to change their role in global economic competition (the phenomenon of leapfrogging) but economies do not yet fully exploit the potential for development.

The Industry 4.0 Workgroup Group report states that these new system strategies should be based on a completely new approach to production as a conglomeration of major industrialists, experts, economists, academics, and the state. Therefore, the question arises about the design of appropriate strategies and networks for innovative development (the author of the study dismisses them as innovation networks and institutions, which support their development) that will form interaction synergies.

Experts have formed a new typical feature of Industry 4.0 solutions as "interaction efficiency." Often this idea is the starting point for assessing the readiness (conformity) of the particular economic system (state, region, enterprise) to Industry 4.0 conditions. Ability to interact with other innovation system participants, i.e. quickly integrate into the innovation networks or adapt to new conditions, openness to such interactions becomes an essential factor of competitiveness of any economic agent. For this reason, one of the key topics in advancing Industry 4.0 technologies is the theme of interoperability and communications standards. Support for a standard makes the product, service or system open to interactions for other participants. In our opinion, the same approach should be applied also for institutional interactions strategies.

Industry 4.0 and new technology modes as a tool for increasing productivity and creating economic independence and information security of country within the framework of system design will ensure the high level of use of industrial networks; autonomous and self-regulating production systems; the combination of modern information technology and classical methods of production.

Industry 4.0 due to its systems effects requires system decisions as for the business sector, as well as for state authorities. In a further section, we'll consider the evolutionary approaches for the intuitional base of the national innovation system.

5. System-institutional approach to innovative development

For the purposes of this study, innovation system as an example of the social and economic system

should be considered as an integral set of interrelated and interacting social and economic institutions and relations regarding the distribution and consumption of innovation resources, production, distribution, exchange, and consumption of goods and services.

The system is called stable structurally (dynamically, computationally, algorithmically, information, evolutionarily or self-organization) if it maintains a tendency to strive for the state that most closely matches the goals of the system, the goals of preserving quality without changing the structure, or leading to strong structural changes (behaviour dynamics; system functioning algorithms, information flows, evolution or self-organization) of the system on a certain set of resources (for example, on a time interval).

Based on the approach (Samosudov, 2008), we can identify the following factors that determine the system stability of the innovation system:

- stability of dynamics of the structure of participants in innovation processes;
- institutional structure and its development;
- structure of the resource base and its dynamics;
- information interaction with participants of corporate relations.

Thus, a system approach to innovation development is more coherent to coordinate the implementation of national innovation priorities and to enhance the competitive advantages within the system "development – security" based on synergy. Using the knowledge gained in analytical practice will contribute to improving the state of national security, saving resources, labour productivity, as well as the transition to sustainable (stable) development of the national economy.

So the balanced innovation policy ensures the coordination of qualitative and quantitative connections of all elements in the innovation system. The development of a balanced innovation policy is very relevant because of the system of internal contradictions between goals, limited resources, and structure (Platonova, 2016):

- system imbalances in the group of contradictions "goals-resources" and "structure-resources," reflecting the imperfection of material and technical basis of the system (lack of resources or their unsatisfactory distribution by system elements);
- system imbalances in the group of contradictions "resources-structure" and "structure-goals," related to the structure inefficiency, its inadequacy relative to goals and resources;
- system imbalances in the group of contradictions "resources-goals" and "goal-structure," related to the discrepancy of the goal-setting.

These system imbalances can be in the base of proposed institutional and technological design methodology, which is oriented on the implementation of institutional innovations (Omelyanenko, 2018).

From the practical point of institutional and technological design methodology within the framework of system theory of innovation system balance application in the context of spatial-temporal approach and system paradigm of innovation development, systemic factors of the balance of the economy can be identified, the methods of system dimensional measurements can be developed, quantitative analysis of their impact can be carried out, the possibilities of controlling systemic stability and the measures of economic policy, aimed at improving the balance of the economy in order to innovate its development and ensure national security, can be developed.

An integrated result of the implementation of such logic should promote a system approach for national security purposes development management, which will be based on forecasting socio-economic changes, including those caused by the processes of innovation.

The appropriate organizational and economic mechanism involves the ability of the economic system:

- 1) to realize the function of strategic system analytics (identification the paths of development based on technological analytics and institutional matrix efficiency);
- 2) to ensure sustainable development on the basis of innovation transformations through ensuring the principle of symmetry of intersectoral links;
- 3) to ensure functioning under the most unfavourable conditions through the use of own intellectual and technological resources (the principle of satisfaction of basic needs, the system ability to self-redevelopment and self-development);
- 4) to generate, implement, and accept innovations within the framework of innovation networks, providing a critical mass of qualitative transformations in the economy.

An example of the evolutionary management of institutional transformations can be Japan. The development of Japan innovation system is based on an evolutionary approach: borrowing foreign scientific and technical achievements (buying licenses, setting up joint ventures, participating in multinational research projects) and subsequently encouraging the development of their own research, primarily on a corporate basis (based on large corporations).

Until the late 80s of the XX century, the first approach prevailed, although its importance in the overall strategy was gradually reduced. In the 80s, a course for maximum scientific and technical self-sufficiency with an emphasis on national innovation was formulated.

The next stage in the formation of Japan's national innovation system can be attributed to the beginning of 2000s, when the Council for Science and Technology Policy, based on an analysis of global trends in the development of the world economy and current problems facing Japanese society, developed a plan for a national strategy in the field of scientific and technical development. At the heart of the strategy is the nomination as the main

national priority for basic research and the identification of two large-scale priority areas.

The modern perspective plan, which is the basis of Japan's national innovation system, is based on the formulation and systematic approach to the interconnection of scientific and applied sectors and

1) includes four sections: life sciences, computer science, and telecommunication nanotechnology and materials, ecology;

2) mainly applied research and technology, including energy and resources, industrial technology, industrial and social infrastructure, problems of Earth and Space.

The same logic can be put in the base of institutional and technological design methodology and eliminate the system imbalances because the institutional context has a direct impact on its content and structure.

6. Strategical aspects of system innovation policy

From the strategical point of view, we propose to consider the systemically acquired sustainability (in the framework of national innovation system), as well as localized acquired sustainability (in the framework of elements (actors) of national innovation system). So it is critically important to build effective institutions of innovation system that will allow timely detection of "windows of opportunities" in new markets where leaders have not yet been formed. For these purposes, it is necessary to learn how to anticipate new markets, to form technological images of the future, and to make purposeful efforts so that this future will take place in the most favourable institutional configuration.

When we consider the strategical factors of institutional transformation, we should take account of the state of the innovation system. In particular, at the formation stage, it is necessary to create conditions for the transfer of final and intermediate results of R&D to industry, monitoring and elimination as institutional obstacles that limit innovation processes. When the level of maturity of the innovation system is reached, open procedures for the formation of cooperative interaction programs with representatives of industry and government and science are needed, in particular, the creation of technological platforms and networks that provide vertical interactions.

So for the purposes of institutional and technological design, we propose to consider innovation networks, which realize such functions:

1. Search for partners for the joint implementation of projects for the commercialization of technology, R&D, access to new markets, etc. This is one of the most popular services for companies of early stages of development that need technology partners that can provide them with a new level of development (e.g., the organization of production of serial products or components);

2. Dissemination of technological information is an actual service for scientific organizations that are interested in broadly informing industry and companies about their research capabilities and competencies;

3. Promotion of technological projects – using the various tools of network interaction, the centres participating in networked work can address the ideas of new projects more effectively and study the potential interest;

4. Conducting technological marketing – carrying out continuous monitoring of technological information distributed among the members of the network (in particular, technological requests and proposals), the centres can conduct a primary analysis of demand and proposals in particular subject areas of research.

Considering institutional network strategies, we underline the necessity of ensuring the systematic participation of technology platforms, industry business associations and development institutions in the formation of an annual review, adaptation and actualization system of lists of priority technologies in cooperation with independent representatives of the expert community.

Figure 1 illustrates the strategical aspects of system innovation policy based on institutions.

Specified in Fig. 1 mechanism is based on the following points and ideas:

- systematization of global economic & innovation trends, which causes intensification of innovation processes, taking into account the features of high technologies as a factor in the formation of competitive advantages and mechanisms of formation of infrastructure (intersectoral high-tech complexes – military-industrial complex, space industry), which allow combining the potentials of influence of individual subsystems of the economy and its analysis as a holistic formation;
- disclosure of the status of an institutional component of innovation development from the point of view of realizing national interests and identifying a list of key innovation priorities that will ensure effective neutralization of both real and potential threats (determined based on global foresight research) and thus maintain an appropriate level of national security;
- identification of place of innovation system in the system of national security, analysis of the impact of innovations on the state of economic security at the national and international levels, as well as the establishment of a clear quantitative linkages between the results of innovation activities of various sectors, including scientific, industrial, technological, and level national security.

The implementation of these points requires the improvement of the mechanisms of interaction between the state, development institutions, and business actors. This requires active coordinating participation in this work as an integrator and coordinator of the process of developing effective solutions in a number of areas.

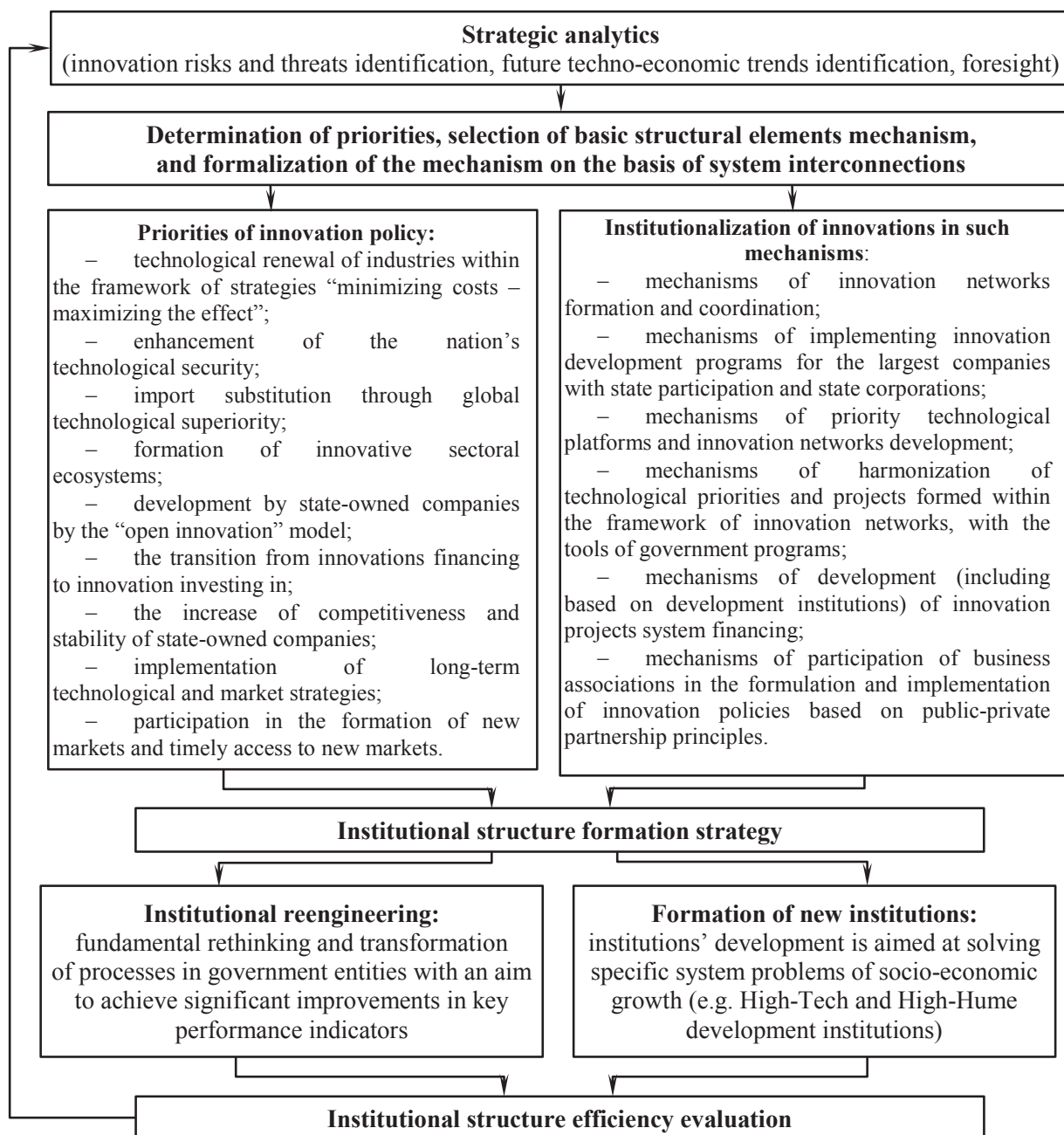


Figure 1. Institutional and technological design framework within the system security

Source: the author's development

This is possible through ensuring the systematic participation of technology platforms, industry business associations, and various development related institutions in the formation of an annual review, adaptation and actualization system of lists of priority technologies in cooperation with independent representatives of the expert community.

It is important to take into account that new technologies require tools of a new type, aimed not at catching up but at advancing development. It is precisely such mechanisms that are lacking so far in order to achieve a decisive breakthrough in the innovation

sphere and to provide the country with a confident position in the emerging markets.

7. Conclusions

As a result of the study, the features of the systemic socio-economic patterns of the functioning of innovation system institutions and the mechanism of management of innovation development in the conditions of modern global technological transformations have been determined. In the future, this makes possible the substantiation of promising areas of state regulation

aimed at activating innovation processes in the economy according to priorities related to scientific and educational, cluster and network development, and the development of a set of models for the harmonization of the system of priorities of national security and sectoral priorities of innovative development. Using the gained knowledge in practice will help to improve the state of national security, save resources, improve conditions, and increase labour productivity, as well as the transition to sustainable development of the national economy.

Systemic coordination of innovation components of state programs, stimulation of innovation activity, involvement of financial strategies of the innovation economy, expansion of international cooperation and activation of demand for high-tech products, increasing the effectiveness of innovation development programs of companies and launching of national projects have been proposed as the objectives of forming institutional innovations. The proposed institutional and technological design methodology provides for the selection of institutional tools and scaling of the most effective development tools.

The proposed network mechanisms for systemic security ensuring provide the improvement of implementing innovative development programs for the largest companies with state participation; further development of priority technological platforms and innovation networks; harmonization of technological priorities and projects formed within the framework of technological platforms, with the tools of state strategies.

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THE CONCEPT OF CONSTITUTIONAL FREEDOM OF A PERSON TO CONDUCT ENTREPRENEURIAL ACTIVITY

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Abstract. The article studies the concept and features of the constitutional freedom of a natural person to conduct business activity in Ukraine. It is analysed features of human freedom under consideration. The authors present their own definition of the constitutional freedom of a person to conduct entrepreneurial activity. The issue of peculiarities of management of a natural person as a business entity is considered. It compares the legal status of a natural person with the legal status of a private entrepreneur. The article lists the duties of a private entrepreneur, as well as limitations on the performance of any types of activities by private entrepreneurs. It considers a procedure of the state registration of a private entrepreneur. The paper defines the essence and main range of tools of mechanisms of state regulation of entrepreneurial activity in Ukraine. The issue of mechanisms regulation is covered. It is formed the principal functions, tools, and methods which the state follows in regulating entrepreneurship. The role of the state in managing the economy and functioning of business entities is discovered. The international experience of state business regulation is described. Statistics are indicated, and specific examples of countries are formed. Lines for handling problems concerning stimulating small and medium-sized enterprises are specified. Based on the analysis, generalization and systematization of research papers, and also weaknesses of government regulation of entrepreneurship in Ukraine are presented. The authors draw conclusions and propose ways for improving government regulation in order to improve and develop entrepreneurship in Ukraine. Theoretical approaches to the determination of the concept of the subject of offences counteraction are presented. Definition of the subject of offences counteraction in the sphere of entrepreneurial activity is analysed, and a range and system of the mentioned subjects are specified. Subjects of offences counteraction in the sphere of entrepreneurial activity vested with administrative and jurisdictional powers are put into an individual group.

Key words: guarantees of constitutional freedom, government regulation of entrepreneurship, constitutional freedom, entrepreneurship, entrepreneurial activity, legal status, offences in entrepreneurial activity, offences counteraction, freedom of entrepreneurial activity, business entity.

JEL Classification: K1, K22, K38, R00, R3

1. Introduction

Human constitutional right and constitutional freedom of entrepreneurial activity are closely related but not alike. Every person has the right to conduct an entrepreneurial activity, which is not forbidden by law. Prohibition of certain types of entrepreneurial activity and restriction on entrepreneurial activity for particular categories of individuals by the current laws confirms their theoretical significance and the necessity of solving important practical tasks concerning a person's exercise of the constitutional freedom.

One of the most popular subjects of entrepreneurial activity is a natural person as a business entity. The topical issue is the differentiation of legal status of a natural person who carries out business activities

or other activity in the economy into a legal status of a person as an entrepreneur and legal status as a natural person. Another problem is that today, in fact, there is no special legislative act, which would consolidate the legal status of a citizen-entrepreneur.

The problem of the human constitutional right and freedom of entrepreneurial activity was studied by theorists, constitutional lawyers, and economists. Among them, there are papers by E. A. Andriukhyn, T. V. Blashchuk, K. H. Boberskf, L. S. Yelizarova, D. V. Zadykhailo, A. V. Kovach, O. O. Kolomiiets, T. M. Kravtsova, L. O. Nikitenko, N. O. Sanyakhmetova, S. V. Riznyk, V. C. Shcherbynf, A. V. Shchuruk, and others. But despite a large number of publications, it should be noted that there is a deficiency of studying

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and investigating the issue of citizens' participation in the economic and legal sphere. A range of important problems of a theoretical and practical nature are still unresolved. One of the problems is the lack of a single legislative act that would consolidate the specifics of the activity of a private entrepreneur and objective prohibitions and restrictions on conducting the entrepreneurial activity.

At the same time, the role of the state is significantly enhanced in modern society. This is manifested in various spheres of activity, in particular, in the elaboration of the system of regulatory and legal acts aimed at regulating the market, entrepreneurial activity, customs rules, banking activities, prices, wages, and social protection of the population. Government regulation of entrepreneurship is the state's influence on the activity of business entities, and its necessity is determined by the objectives of economic policy aimed at achieving sustainable development of the state and its regions, ensuring the constant growth of indicators characterising the level of well-being and quality of living standards in the country. The term "mechanism" is used in engineering where it means a device that transmits or converts the movement, and the meaning of this term is also associated with the internal structure of the machine. This word is used as the definition of the internal structure, the system of something and also it can be used for characteristics of the complex of states and processes, which form a certain phenomenon.

Issues of improving the mechanism of government regulation of entrepreneurial activity under the conditions of activation of the country's integration processes are priority tasks and require a comprehensive examination. There is a need to distinguish and generalise the terminology of "public administration" in the part concerning the concepts of regulation and government regulation of entrepreneurial activity. The determination of theoretical-methodological and practical principles of the formation and development of mechanisms of government regulation of entrepreneurial activity is an important scientific and practical task, which should be exercised by creating multifarious control mechanisms, their adaptation to the conditions of the external environment of enterprises operation.

2. Constituent elements of constitutional freedom of a person to conduct entrepreneurial activity in Ukraine

The current legislation of Ukraine doesn't have definitions for the concept "business entity – citizen". The Ukrainian legislation also has a lack of a unified terminological approach to the definition for the mentioned category of business entities, and it is used the following terms: "citizen as a business entity", "entrepreneur without the status of a legal entity", "citizen-

entrepreneur", "private entrepreneur". It is noted that the use of several terms in relation to one concept deforms the will of the legislator, causes difficulties in the process of law applying, and negatively affects enforcement of the rights and interests of the participants of legal relations. And due to this fact, it is justified the introduction of terminological sameness regarding the identification of a person as a business entity and the use of "business entity – citizen" for the term because this term is most correct for the denomination of relations between an individual and the state (Vinnyk, 2017).

A private entrepreneur is a relatively new entity of economic law as entrepreneurial activity under a state-controlled economy was banned and its legalization in Ukraine was carried out in accordance with the Law of Ukraine "On Entrepreneurship" (1991), which was repealed due to the entry into force of the Commercial Code of Ukraine (hereinafter referred to as CC of Ukraine). A citizen is recognized as a business entity if he/she conducts entrepreneurial activities on the basis of his/her state registration as an entrepreneur without the status of a legal entity. A citizen-entrepreneur is liable to the full extent of his/her assets in accordance with the law, which may impose a court-enforced collection on it (Art. 128 of CC of Ukraine (Hospodarskyi kodeks Ukrainy, 2003)). State registration of a particular natural person by making relevant records into the Unified State Register is a determinative component for gaining the status of an entrepreneur, including the agriculture sphere according to the Law of Ukraine "On State Registration of Legal Entities, Private Entrepreneurs and Public Formations. In accordance with Art. 18 of the Law, an entrepreneur has to submit the following documents for state registration of a private entrepreneur:

- application on state registration of a private entrepreneur;
- application on simplified tax system for a natural person and/or a registration application for voluntary registration as a payer of value-added tax in the form approved by the central executive body, which ensures the formation of the state tax and customs policy at the request of an applicant;
- notarized written permission of parents (adoptive parents) either guardian or tutorship and guardianship authority for a person aged sixteen years and who has a desire to carry out entrepreneurial activity but doesn't have absolute civil capacity;
- agreement (declaration) on the formation of family farm enterprise, in a case of state registration of a natural person who establishes a family farm enterprise independently or together with family members according to the Law of Ukraine "On Farming Enterprise".

The procedure for state registration of a private entrepreneur involves: checking the completeness of documents submitted to a public registrar and

completeness of the information indicated in the registration record; verification of documents submitted to the state registrar for confirming a lack of grounds for refusal to conduct state registration; making entry about a private entrepreneur in the Uniform State Register; registration and issuance of an extract from the Uniform State Register. According to Art. 26 of the mentioned Law, examination of documents submitted for state registration and other registration actions is carried out within 24 hours after the receipt of documents submitted for state registration and other registration procedures (Pro fermerske hospodarstvo, 2003).

Legal status of a private entrepreneur is characterised by the availability of the following elements: official registration as a business entity, accounting in the bodies of the state fiscal service and the Pension Fund of Ukraine as a taxpayer and a Unified Contribution for Compulsory State Social Insurance respectively, production of a seal (if necessary), opening of a current account in a banking institution (as required), licensing application (in the case of provision of licensing types of activities).

According to objects of activity, a natural person can carry out: industrial entrepreneurial activity, that is, activity in the process of which certain goods are produced; non-production entrepreneurial activity, within which one distinguishes as follows: activity on work performance, rendering of services (conduct repairs, provision of information services, implementation of transportations); trading activity; other non-production activities, in particular, activities in the financial market.

A citizen-entrepreneur implements his/her activities according to the principles of freedom of enterprise and fundamentals provided by Art. 44 of the CC of Ukraine. A citizen-entrepreneur implements his/her activities according to the principles of freedom of enterprise. In addition, entrepreneurship is considered as independent, initiative, systematic, at one's own risk, legal activities on goods production, work performance, rendering of services, trading activity with a view to gain a benefit. Citizens of Ukraine, citizens of other states, stateless persons can conduct business but it is limited to deputies, servants and officials of government and local self-government bodies, servicemen, personnel of prosecution service, court, state security, etc. An entrepreneur is obliged:

- to obtain a license for conducting peculiar types of business activities according to cases and procedure prescribed by the law;
- to notify the state registration authority of the change of his/her address indicated in the registration documents, objects of activity, other essential conditions of his/her business, which must be specified in the registration documents;

- to adhere to the rights and legitimate interests of consumers, ensure the required quality of the goods (works, services) that they produce, observe the rules of mandatory certification of products, established by law;
- to prevent unfair competition, other violations of anti-monopoly and competition legislation;
- to keep records of business performance in accordance with the requirements of the legislation;
- to provide the bodies of revenues and duties with a declaration of property status and income (tax return), other relevant information for tax charges and other mandatory payments in due time; to pay taxes and other obligatory payments in the form and in the amount set forth by the law (p. 6 of Art. 128 of the CC of Ukraine) (Pro fermerske hospodarstvo, 2003).

The Constitution of Ukraine states about the right to carry out business activity which is not forbidden by the law (Konstytutsiia Ukrainy, 1996) that is quite equivocal: entrepreneurial activity cannot be prohibited because such activity is socially useful in a market society, and the state can only impose restrictions on the implementation of its individual types or certain subjects. Due to the fact that Ukraine hasn't any unified legislative act, which would set objective bans on business performance, there are many negative developments in the business area. The legislation includes restrictions on the performance of certain types of activities by private entrepreneurs. It is referred to activities involving the distribution of narcotic drugs, psychotropic substances, their analogues and precursors; activities related to the protection of certain high-security objects of state property law, as well as activities involving forensic, medical, forensic psychiatric examinations and the development, testing, production, and operation of carrier rockets including their space launches for any purpose; activities involving the production of composite motor petrol or with the addition (combination) of bioethanol and/or bio-components on bioethanol base to the hydrocarbon base (gasoline, distillations, components, etc.); activities involving the production of bioethanol (Article 4 of the Law of Ukraine "On Entrepreneurship") (Pro pidpriemnytstvo, 1991).

3. Mechanism of government regulation of constitutional freedom of a person to conduct entrepreneurial activity in Ukraine

With the development of commodity production, its monopolization and complication of reproductive processes, the possibilities of regulating market mechanism were limited. In the economy, there are significant disadvantages: a violation of equivalence between aggregate supply and demand, inflation, unemployment. All this mess affects the functioning of business structures. Not all business entities can adjust to that sort of an economic situation. Under

the conditions, there is an objective need to intensify the role of the state in regulating the economy and functioning of business entities.

The development of entrepreneurship in Ukraine has reached the stage where the improvement of regulatory policy determines its further prospects.

Government regulation of business is a system of legal, organisational, regulatory, and control measures of the state aimed at creating a favourable business environment and managing the public sector to ensure the efficiency and competitiveness of the national economy. Today, Ukraine as an independent, self-sufficient state, guarantees all entrepreneurs (despite their organizational forms of entrepreneurial activity) equal rights and creates the same opportunities for functioning, access to material, technical, financial, labour, information, natural, and other resources upon conditions of execution of works and supplies for state needs. Bodies of the state administration build their relations with entrepreneurs using: a tax and financial-credit system that fixed tax rates and interests on public loans; tax privileges; prices and pricing rules; targeted grants; exchange rate; the amount of economic sanctions; state property and a system of reserves, licenses, concessions, leasing, social, economic and other rules and norms; scientific and technical, social, state and regional programs; agreements for works and supplies for state needs (Buhlak, Zhuravlov, 2016).

The state carries out business regulation through:

- legislative provision of freedom of competition, protection of consumers against unfair competition and monopoly abuse in any spheres of entrepreneurial activity;
- tax and financial-credit policy, including the establishment of tax rates and interest on state loans, tax breaks, prices and pricing rules, exchange rate, size of economic sanctions;
- definition of social norms of enterprise operation, according to which an entrepreneur is obliged to provide respective labour conditions, labour protection, remuneration not lower than the fixed minimum level, as well as other social guarantees, including social and health insurance and social security;
- establishment of environmental norms and standards;
- involvement of entrepreneurs in realising various scientific-technical and economic regional and state programs;
- the conclusion of contracts for the execution of works and the provision of services for state needs.

The main means of regulatory government influence on the activities of business entities are state order; licensing, patenting and fixing quotas; certification and standardization; application of norms and limits; regulation of prices and rates; provision of investment, tax and other incentives; provision of grants-in-aid, compensations, targeted innovations and subsidies

(Cherednychenko, 2014). Successful development of an enterprise is possible only in the context of the security of positive competition, the creation of favourable conditions and sustainable support from the state, effective activity of market mechanisms. Mechanism of government regulation of entrepreneurship is a system of measures elaborated by the state taking into account market requirements and interests of business entities.

Government regulation is performed by the means of the system of norms and measures that prescribe business entities conduct using both administrative methods of influence (laws, decrees, orders, acts, instructions, regulations, etc.) and a system of economic methods and regulators (taxes, prices, bank interest, privileges, sanctions, etc.). Government business regulation has own functions, instruments (methods) and relevant authorities. Instruments, or methods, of government regulation and business support can be divided into economic, administrative, and psychological. Among the administrative methods, the most important and perspective is the regime of the greatest business advancement upon the implementation of a corresponding legal basis, which would not impede the functioning of large business organisations and government enterprises. Economic methods are divided into three groups. Financial methods of entrepreneurial development are soft lending, availability of investment resources, subsidy assistance, joint financing of socially significant projects. Fiscal methods, a reasonable reduction of business rates that contributes to business expansion, are equally relevant. The input method is the development of human resources, including training and retraining of personnel on the basis of state educational programs; information provision, including participation in exhibitions, conferences, fairs and access of business organisations to material resources. Thus, the mechanism of government administration is a complex and system entity, which organically combines various components: economic, motivational, organizational, political, and legal (Prokopets, 2018).

The basis of regulatory and legal support is legislative and other statutory and legal acts, relevant rules of civil, credit and financial, tax, administrative, labour and other branches of the current legislation where the CC of Ukraine is the main one. State Committee of Ukraine on Regulatory Policy and Entrepreneurship is the central body that ensures the formation and implementation of state policy in the sphere of development and support of entrepreneurship. The main tasks of the body are the development of entrepreneurial policy, the generalization of a practical application of business legislation, elaboration of proposals aimed at its improving. In addition, the Committee promotes the development of small business, the system of consultancy and information support and prepares proposals for the

implementation and improvement of the mechanisms of financial and credit backing of entrepreneurship and its foreign economic activities, coordinates the system of training and retraining of personnel, etc. Ukraine has a significant number of public organisations, which are aimed at making a contribution to entrepreneurship (Kyrychenko, 2015).

The mechanism of state regulation in Ukraine is enshrined in the Laws "On Protection of Economic Competition", "On Protection against Unfair Competition", "On Advertising", and "On Auditing Activities" in the Code of Ukraine and Civil Code of Ukraine. The regulation of the external economic activity of entrepreneurial organisations is carried out on the basis of the provisions set forth in the Law of Ukraine "On Foreign Economic Activity" which are fundamental for all business entities and should be taken into account during organising of this type of activity.

It is necessary to focus on the means of technical regulation consisting of norms, standards, limits, and standardization system, which is directed to the activity of business entities in order "to achieve an ideal degree of ordering in a particular sphere, the result of which is an increasing degree of conformity of product, processes, and services with their functional purpose, elimination of barriers to trade and promotion of scientific and technological cooperation" (Krehul, Bank, 2016). We can state that the main principles of government support of entrepreneurship are the organizational structures of human resources and scientific and methodological support, as well as the developed market infrastructure and informational and consulting support of entrepreneurship.

Studying the experience of government business regulation in the countries of the European Union (hereinafter referred to as the EU), it is important to emphasize that their concept of supporting small and medium-sized businesses in them is clear and comprehensible. It takes into account national and pan-European interests, includes goals and principles of that sort of policy and has mechanisms and organizational structures for its implementation. Today, small businesses that are constantly growing in the economy of Great Britain account for 25% of the total workforce. Italy is recognized as the European leader in this sphere, which has nearly 800 thousand industrial enterprises in the country and 99% of small and medium-sized enterprises in the total. In Germany and the Netherlands, small and medium-sized businesses provide about 40% of exports, in Italy – 25–30%, in France – 20–25%, and in Japan – 10–15%. The main directions of government support for small and medium-sized businesses in EU countries are the formation of the infrastructure for support and entrepreneurship development, the establishment of a system of benefits and a transparent taxation system, the availability of financial and credit support and cooperation with large enterprises, etc. However, it does

not mean the creation of "hothouse" conditions for small and medium-sized enterprises, but it is rather a means of balancing the opportunities of small, medium, and large enterprises under the competitive struggle, a way to compensate entrepreneurs' reimbursement for their activities in risky spheres. In the USA, despite the dissemination of idea maximization of the freedom of economic activity, the role of the state in regulating entrepreneurial activity is a significant but ambiguous one. The relations between the state and the business sector have a "wave-like" tendency – from regulation of business activity to its deregulation (that is the reduction of state influence on entrepreneurial activity), which was distributed in the late 1960s and spread in 1970–1980s. Most American scientists point out that at the present stage, the relationship between entrepreneurship and state is antagonistic, and their partnership is considered impossible and harmful to society. At the same time, although business entities take the majority of their decisions on their own, the scope of their activities is reduced, and, accordingly, the sphere of state influence increases. That sort of a tendency to enlargement of the state involvement in the participation in regulating entrepreneurship is becoming widespread and has an ascending trajectory as analysts emphasize.

In regards to Ukraine, it can be noted that the priority of government regulation and support of small and medium-sized enterprises in the information society predetermines the need to switch from direct administrative assistance to the formation of favourable economic and social environment for the improvement of mechanisms and instruments for promoting the development of entities of small and medium-sized enterprises. According to the foreign experience, small enterprises are the most flexible and advantageous for the implementation of scientific and technical, innovation and latest achievements. However, in Ukraine, their share in producing a gross domestic product is much lower than in countries with a developed market economy. The state can contribute to solving this problem by investing a part of the funds received from the privatization of state property in the development of facilities and equipment of entrepreneurship; elaboration and implementation of a mechanism for the transfer of facilities and production capacities to manufacturing enterprise of small enterprises, including those who release in the process of liquidation, reorganization and bankruptcy of enterprises; use of the productive capacity of enterprises under leasing conditions that will enable business organizations to minimize the cost of purchasing fixed capital, and the possibility to deposit a share of business property in their capital stock or its transferring into the economic management of business organisations will increase their security capacity and stability; assistance in the process of formation of a developed real estate market.

4. Offences counteraction in the business sphere as a guarantee of the constitutional freedom of a person to conduct entrepreneurial activity in Ukraine

Analysing the system of subjects countering offences, it should be noted that they form a holistic functional and organizational mechanism, which is characterized by the common purpose and management in the sphere of offenses counteraction. On the one hand, the specificity of the mechanism is conditioned by the multiplicity of functions performed in relation to security, prevention, control, cessation, consideration, investigation, and disclosure of offenses and, on the other hand – by the distribution of tasks among subjects of different levels due to the hierarchical structure of the system for countering offences. This system is a complex social organisation because its groups of similar bodies form relatively independent organizational units that function on the basis of identical laws. Each of these units is a sub-system of a larger system and, at the same time, consists of its sub-systems (Khomko, Kulhavets, 2016).

In addition, we also propose the authorities of public administration, judicial bodies, the whole complex of enterprises, establishments and organizations operating in various spheres of social activity etc. to attribute to the subjects of offences counteraction. However, it is essential to pay attention to the important feature of the mentioned activity. The specified spectrum of functions is carried out by the majority of these bodies along with the solution and accomplishment of other tasks. Execution of the function of counteracting offences is the main type of activity for a relatively small part of such actors. The above bodies have the appropriate rights and duties to influence one or other criminal factors, and due to this reason, they carry out relevant information, methodological, resource, and personnel support.

We mark that some scientists attribute the following ones to subjects of counteraction to offenses: subjects who directly carry out individual prevention; subjects carrying out preventive measures during the performance of their control and law enforcement functions; subjects which are mainly engaged in the management and coordination of activities for the prevention of offenses; and even the Orthodox Church (Bachynskyi, 2018). However, in our opinion, such provisions are quite controversial taking into account the specifics of the issue under consideration.

We also cannot disagree with the standpoints of researchers who identify the President of Ukraine and the Cabinet of Ministers of Ukraine, who “form the legislative and other regulatory and legal bases for offenses prevention, establish competence, rights and duties of other entities of the activity, carry out its financial, personnel, logistical and other resource support, planning, control and other functions of state

legal administration in this sphere”; the relevant units of the bodies of internal affairs (now – the National Police – *Authors*), the Security Service of Ukraine, prosecution authorities and other law enforcement agencies with subjects that maintain information and analytical procurement; units of law enforcement authorities with subjects that detect criminal factors. The latter group is the subjects that implement response measures to individual crimes and crime in general.

Summarising the above, it is possible to specify the subjects of counteraction to the offense as follows: public and administrative authorities; local self-government bodies; executive and regulatory bodies; the National Police of Ukraine; Security Service of Ukraine; prosecutor service; courts; general and economic management bodies; informational, statistical, medical, educational and cultural-educational institutions; trade unions, public units of law enforcement, parties, faith-based organisations; services for minors; correctional labour colonies and others like that. Based on this list of actors counteracting the offense, one can also determine the system of their powers. In a short form, the above authorities perform the following tasks and functions in relation to offences prevention:

- to determine the main directions, tasks, forms, and methods of counteracting offenses in the state;
- to carry out informational and analytical provision for counteraction to the offense;
- to detect and inform about criminal factors;
- to carry out response measures directly to individual offenses, as well as measures for elimination, reduction or neutralization of criminal factors including measures for correction of personality deformations and elimination of circumstances that have been caused it (Kasianenko, 2018).

Analysing the concept and essence of the subjects of offences counteraction, one can state that the scope of their powers in this sphere (except for bodies with special focus) is a quite wide and common for many areas of social life of the state and society, and entrepreneurial activity is no exception. Thus, we propose that the subject of offences counteraction in entrepreneurial activity is considered both as a system of government and non-government bodies, public organisations, social groups and citizens whose activities are aimed at eliminating the causes and conditions that result and favour offenses in business commercial activity (entrepreneurship), preventing offenses at different stages of the unlawful behaviour of the participants in the sphere of entrepreneurship, as well as their bringing to legal liability.

It is essential to mark that the range of subjects counteracting offences in entrepreneurial activity is quite broad and to analyse their activities within our study is impossible (Bilousov, 2017). As it was mentioned above, for most of the subjects contracting offences is a task that is carried out along with the main tasks such as the

generation of a legislative framework and manifestation of initiatives in this sphere, management, control, and supervision over the activities of participants of legal relations in the sphere of economic activity in general and business entities in particular, as well as compliance with relevant legislation. Powers directly related to counteracting offenses in business activities are prescribed to relevant specially established bodies including non-governmental ones.

In addition, according to the CC of Ukraine, control measures over entrepreneurial activity are exercised by state supervision of nuclear and radiation safety (except for state supervision over activities involving sources of ionizing radiation where activities with their use are not subject to licensing), state architectural and construction inspectorate (supervision), state supervision of economic activities for the provision of financial services (except for money transfer operations, financial services in the securities market, derivative securities and the market for banking services), state supervision and control over observance of the legislation on labour and employment of the population in accordance with the procedure established by law and taking into account the peculiarities defined by the laws in the relevant spheres and international agreements, in particular, state supervision (control) in the civil aviation industry taking into account the specifics established by the Air Code of Ukraine, regulatory and legal acts adopted for its implementation (Aviation Rules of Ukraine) and international contracts in the field of civil aviation.

Thus, the system of counteracting the offenses in the entrepreneurial activity is rather numerous and diverse, therefore, we propose to divide the above authorities into several groups depending on such criteria as the form of ownership, the nature of the activity, the complex of powers in the sphere under investigation:

1. State bodies of general competence exercising powers to counteract offenses in the sphere of entrepreneurial activity along with their main functions (the Verkhovna Rada of Ukraine and local self-government bodies, the President of Ukraine and his administration, the Cabinet of Ministers of Ukraine and local state administrations, the Ministry of Finance of Ukraine, the Ministry of Economic Development and Trade of Ukraine; the Ministry of Revenues and Duties of Ukraine; law enforcement agencies (Security Service of Ukraine, the Ministry of Internal Affairs of Ukraine, National Police of Ukraine, Prosecutors Service, etc.), judicial agencies; other central executive bodies that carry out activities to combat offenses in business along with their basic functions).

2. State specialized committees, departments, services, and inspections established directly for the purpose of counteracting offenses in the sphere of entrepreneurial activity (State Fiscal Service of Ukraine, State Financial Inspection of Ukraine, Economy

Protection Department of the National Police of Ukraine, Antimonopoly Committee of Ukraine, State Inspection of Ukraine for Consumer Rights Protection, State Property Fund of Ukraine, State Treasury Service of Ukraine, etc.).

3. Bodies of the financial credit system (National Bank of Ukraine, commercial banks).

4. Non-state actors for business offenses prevention.

It should be noted that some of the above-mentioned state bodies (administrative commissions, rayon, city district, city or city district courts, the National Police of Ukraine, bodies of state financial control, revenue and duties bodies, etc.) can be included into a special group of entities that are endowed with administrative and jurisdictional powers. Their full list is contained in Section III "Bodies authorized to consider cases concerning administrative violations" of the Code of Ukraine on Administrative Offenses (hereinafter referred to as the CUAO). The aforementioned subjects have the right to consider cases of administrative offenses the contents of which are listed in Chapter 12 "Administrative Offenses in the Areas of Trade, Catering, Services, Finance and Business" of the CUAO (Kodeks Ukrainy pro administrativnyi pravoporushennia, 1984) and are authorized to bring guilty persons to administrative responsibility.

5. Conclusions

The constitutional freedom of a person to conduct the business activity is an economic opportunity of a person on an independent, initiative, systematic, at one's own risk activity for the realization of the right to manufacture, the performance of works, provision of services, trade in order to profit, which is enshrined in the Constitution and is not prohibited and detailed by the laws of Ukraine. Features of constitutional freedom of a person to conduct business activity are as follows: its consolidation in the Constitution and laws of Ukraine; non-restrictive and non-prohibitive nature of human opportunities for entrepreneurial activity; independence, initiative, regularity, risky nature of activity; manufacturer, works performance, provision of services, trading; receiving of profit.

We propose to amend the legislation in the following way: a) in Art. 42 Part 1 of the Constitution of Ukraine, to add "Freedom of enterprise in Ukraine is guaranteed" and further as the text goes before the words "Everyone has the right to carry out entrepreneurial activity" ... (Konstytutsiia Ukrainy); b) in Art. 43 of the Commercial Code of Ukraine, to consolidate "entrepreneurs have the right" and further as the text goes instead of the words "entrepreneurs are guaranteed freedom". The implementation of the proposed changes and recommendations will facilitate improving the realisation of the constitutional freedom of an individual to conduct entrepreneurial activities.

Under modern conditions, entrepreneurial activity needs a detailed legislative regulation, which is intended to promote the further development of both the various forms of entrepreneurship and the economy of Ukraine as a whole. To date, there is no special regulatory act that would establish the legal status of a citizen-entrepreneur and objective prohibitions and restrictions on the

implementation of the entrepreneurial activity. Therefore, a new legal act must be adopted that would consolidate the relevant status and peculiarities of the management of a private entrepreneur as a business entity. It would be expedient to fix the list of activities where the entrepreneurship is prohibited in Art. 128 of the CC of Ukraine.

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MEDIATION INSTITUTION: EXPERIENCES FROM COUNTRIES ACROSS THE WORLD

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Abstract. *The aim* of the article is to study the process of implementation of the institute of mediation in Ukraine and across the world. *The subject* of the study is mediation institution, analysed from scientific perspectives and on the basis of provisions of foreign and Ukrainian legislation. *Methodology.* The study is based on general scientific and special-scientific methods and techniques of scientific knowledge. The logical semantic method enabled to determine the content of the concepts of "mediation" and "labour dispute". The comparative legal method enabled to compare the doctrinal approaches to this issue. The same method enabled to analyse the legislation on the subject matter in the US and leading European countries. The normative dogmatic method enabled to interpret the content of legal regulations of domestic and foreign legislation that regulate the issue of mediation. The system-structural method enabled to identify the main differences of mediation from other ways of economic dispute resolution. Methods of analysis and synthesis enabled to identify the main purpose of mediation and the main task of a mediator, as well as the key advantages of this institution. The method of legal modelling enabled to develop proposals regarding this institution introduction in Ukrainian legislation. *Practical implications.* Studies on mediation institution in the US and leading European countries helped to develop recommendations for this institution introduction in Ukrainian legislation, as well as to identify issues requiring further consideration and research. *Relevance/originality.* The concepts of "mediation" and "greenmail" are defined. The main purpose of mediation and the main task of a mediator, as well as the key advantages of this institution, are identified. In Ukraine, in comparison with other countries, the indecisiveness and inconsistency of the actions of the domestic legislator are stated as the key problem of mediation institution. It is underlined that nowadays-Ukrainian society is ready for this institution's introduction because mediation is the alternative way of dispute resolution, which enables to solve a number of social and economic problems.

Key words: foreign experience, mediation, dispute resolution, legislation, legal regulation.

JEL Classification: J52, K34, L43

1. Introduction

Any socially oriented democratic state of the world is obliged to create conditions, under which each person will feel protected in all activities. In the context of the global economic crisis, constant fluctuations in the economy and the growth of unemployment, the issue of labour rights protection of workers is particularly acute. International labour law provides a number of labour guarantees, among which one of the keys is the ability to protect their rights in accordance with the law. However, the high corruption of courts and a significant delay in labour dispute resolution affects negatively the quality of labour rights protection by this body of state power. Therefore, new institutes in the area of labour occur, among which mediation plays an important role all over the world. Indeed, this method allows for a more efficient and qualitative labour dispute resolution. However, despite all the progressiveness,

a number of problematic issues related to mediation introduction not only in Ukraine but also all over the world. Meanwhile, it should be noted that in some states, the institution of mediation functions effectively.

Some specific issues regarding mediation introduction in Ukraine were considered in the works of: R. L. Hordiienko, M. Ya. Polishchuk, P. S. Prybutko, R. V. Mykhailenko, L. M. Dubchak, A. P. Huskova, D. V. Matkina, P. A. Bushchenko, A. M. Sliusar, N. M. Shvets, V. V. Zhernakov, S. A. Podoliak, T. O. Podkovenko, O. O. Sosiura, D. A. Kratiuk, and many others. However, despite a large number of scientific researches, there is no comprehensive study on the comparative legal analysis of mediation institution in Ukraine and in the countries across the world in legal literature. Therefore, the aim of the article is to study the process of implementation of the institute of mediation in Ukraine and across the world.

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2. Presentation of the main material

Primarily, it should be determined what mediation institution is in general? The term “mediation” comes from the Latin for “intermediary,” *mediatio*; the same meaning has the word in English, in French (*médiation*). In social psychology, scientists consider mediation as a specific form of the resolution of disputes, conflicts, reconciliation of interests (Materialy kursu pidhotovky mediatoriv iz kola posadovtsiv; Hordiienko). Both domestic and foreign scientists have tried to define the essence of the concept of “mediation.” For example, A. Rau, T. Sherman, and S. Peppet, exploring alternative dispute resolution, define mediation as a process, in which the parties, with the assistance of a third party neutral, systematically make efforts to find out their common and different views, explore the possibilities of alternative dispute resolution and seek compromises to reach an agreement on resolving their own dispute (Rau, Sherman, Peppet, 2002; Polishchuk, 2014). Ch. Moore argues that mediation is often an interference in a negotiation or conflict of a third party who is not authorized to decide on dispute resolution but helps the parties to resolve the dispute voluntarily. Moreover, the mediation procedure should also contribute to restoring trust and mutual respect between the parties (Moore, 2003). Ch. Besemer defined mediation as a technology for solving the conflict with the participation of a neutral third party. Most define mediation as a specific conflict resolution approach, in which a neutral third party provides a structured process to assist conflict parties to come to a mutually acceptable resolution to controversial issues (Materialy kursu pidhotovky mediatoriv iz kola posadovtsiv; Hordiienko).

Ukrainian researchers have also considered the definition of the essence of the specified term. In particular, H. V. Yeromenko argues that mediation is a process of negotiation to resolve a controversial issue involving a neutral third party, a mediator, who conducts this negotiation process, hears the arguments of the parties on the substance of the dispute and actively helps them understand their own interests, evaluate the possibility of compromises and come to satisfactory decision on their own. To be precise, the author states that mediation is one of the so-called alternative (extra-judicial) dispute resolution, the effectiveness of which is particularly high in all countries where this institution is introduced (Yeromenko).

In Conflict Resolution Studies, according to P. S. Prybutko, P. V. Mykhailenko and L. M. Dubchak, “mediation” (from Latin *mediation* for “intermediation”) is private and confidential use of mediators to resolve a conflict situation. It enables to avoid time-consuming litigation and unpredictable extra costs. The authors emphasize that mediation is the process of conflict settlement between two disputing parties with the participation of the third neutral party. As an alternative

to litigation and other forceful procedures, mediation has a number of advantages, the most important of which is conflict resolution through the parties’ decision made voluntary and equitably, which equally satisfies the parties concerned (Prybutko, Mykhailenko, Dubchak et al., 2010).

T. I. Shynkar understands mediation as an alternative to the judicial procedure form of pre-trial or out-of-court or extra-judicial dispute resolution and conflict settlement, which is voluntarily chosen by parties concerned (or appointed by the authorized body), with a view to reaching an agreement between them, and which structured procedure requires the presence of a third party (impartial and neutral mediator); mutually agreeable for the parties to a dispute or conflict, not authorized to make own decisions for any of the disputing parties, but intended to provide professional, comprehensive (multi-sided) assistance to a fair resolution/settlement of a conflict/dispute and through mediation bringing the disputing parties to a stable and constructive dialogue, which in the end leads to a compromise, stable, and mutually appropriate to the parties agreement to achieve preventing or reducing the conflict, eliminating its determinants, improving its resolution, reducing costs of resolving the conflict/dispute and/or refusing to litigate a conflict/dispute, terminating proceedings already begun and/or reducing total claims (Shynkar, 2017).

A. P. Guskova and D. V. Matkina argue that mediation is an out-of-court dispute settlement between subjects with the participation of a disinterested party; one of the informal ways of conflict resolution; a process in which the parties meet together with the elected, impartial, neutral mediator (arbitrator) who assists with negotiation to develop a mutually acceptable, viable decision under the existing conflicting interests between them (Guskova, Matkina, 2009). According to S. F. Demchenko, the main differences between traditional litigation and mediation are that the judge hears the parties and, based on the relevant articles of the law, makes a decision. On the contrary, the task of the mediator is much more complicated: to assist the conflicting parties with own way to resolve a controversial issue. Therefore, the mediator must have additional specific knowledge. Know how to organize the process of conflict resolution in such a way that its parties would be involved in the process of voluntary creative search for such a solution to their dispute that would satisfy both sides and open up new opportunities for their further interaction (Demchenko, 2009).

It is worth agreeing with M. M. Kuzmina, that the main objective of mediation is an orientation towards reaching an agreement, a consensus, a joint decision that will satisfy both parties of the conflict. The main difference between mediation and other methods of economic dispute resolution is that it does not focus on finding and proving the rightness of a particular party.

The main task of the mediator is to concentrate efforts on strengthening the ability of the parties to mediation, on parties' recognizing and accepting each other with all differences in views. A mediator is a person whose task is to assist the parties to achieve reconciliation in the dispute. The mediator has no authority to make decisions, and his/her role and importance in the mediation process are determined by the following three positions: 1) providing feedback to the disputing parties so that they can understand the prospects for dispute resolution and find out the main needs and interests of each other in the present dispute; 2) rationalization of parties' negotiation; 3) encouraging the disputing parties to negotiate on the principle approach and find solutions that are generally in line with their main interests, and in individual cases and at the request of the parties, introduction of significant proposals aimed at stimulating, directing the parties to reach agreement (Kuzmina, 2008).

To sum up, the above arguments prove that mediation, as a way of dispute (conflict) resolution, can be used in many areas of public life, depending on specifics and peculiarities acquired. Since in this work, mediation is considered as a mechanism for the resolution of a labour dispute, the latter should be determined. Labour disputes are disagreements, unresolved in direct negotiations, between the worker (the staff) and the employer regarding the application of labour law regulations, as well as the establishment of new or changes in existing working conditions. The moment of labour dispute occurrence is the claim to the appropriate body examining labour disputes (Ortynskyi, Hryshchuk, Matska, 2008).

In the Labour Law Study, according to P. A. Bushchenko, A. M. Sliusar and N. M. Shvets, labour disputes are understood as disagreements, unresolved by direct negotiations, between the employee (or his/her authorized representative) and the employer (or his/her authorized body) over the application of regulations of labour legislation or the establishment or modification of working conditions, which are resolved in the manner prescribed by law (Bushchenko, Sliusar, Shvets, 2013). V. V. Lazor argues that a labour dispute is a claim to rights of one part to a labour relation to rights implementation provided for by labour law, collective agreements, other labour contracts, decided by the jurisdiction authority in the manner prescribed by law (Lazor, 2005). O. O. Kondratiev argues that the labour dispute is unsettled disagreements, submitted to the appropriate competent authorities for examination, between the subjects of labour and other closely related legal relations over the application of working conditions, established by law, or other legal regulations, or over the establishment of new (changing existing) working conditions of employees and public servants, not enshrined in normative acts and solved in the manner prescribed by law (Kondratiev, 1985).

Therefore, labour disputes are disagreements between an employee and an employer, arising in the course of work, the resolution of which requires the involvement of a third party (in this case, the mediator). To sum up, mediation is primarily a process of peaceful settlement of disagreements that may arise between an employee and an employer. Such activity is carried out, in accordance with the law, by the third impartial party (mediators), which has special knowledge, skills, and abilities. The main purpose of the mediator is to establish a dialogue between the disputing parties and ensure its resolution promptly and effectively on mutually beneficial terms for the disputing parties. Therefore, the benefits of the mediation are: 1) it is the most civilian way of dispute resolution, through which the parties can find an understanding and, possibly, continue to work together, that is, in this case, the ability to meet the needs of both disputing parties increases; 2) it allows to reduce significantly the burden on the courts and reduce court costs; 3) it is a more efficient way of labour dispute resolution; 4) according to the world practice, dispute resolution through mediation leads to 98% of successful implementation of agreements the parties themselves; 5) it contributes to raising the level of legal consciousness of the population and the people's confidence in justice.

However, despite the advantages, the mediation institution in Ukraine, including labour dispute resolution, remains poorly developed, and its implementation is hampered constantly, all attempts to "legitimize" it remain at the level of draft laws. However, global practice shows that mediation implementation is important since 85% of disputes with a mediator are successful. Therefore, the study of foreign experience in this area is important for the Ukrainian legislator. Considering the positive foreign experience of mediation introduction, the United States of America (hereinafter referred to as the US) should be mentioned first, since for many years this country has demonstrated the effective functioning of the institution under consideration.

The entire US law system is aimed at ensuring voluntarily dispute resolution out-of-court; moreover, the judge may interrupt litigation and advise the parties to work with the mediator. In the US, pilot mediation programs engaging volunteer mediators began in the early 1970s in several large cities. They were so successful that hundreds of other programs were conducted throughout the country over the next two decades, and today the practice of mediation is widespread in the US. The US litigation system is aimed at voluntarily dispute resolution before a court session in most cases; moreover, the judge may interrupt litigation and advise the parties to work with the mediator (*Stanovlennia mediatsii v Ukraini*). The American Arbitration Association, which has adopted its Rules of Arbitration and Mediation used by internal arbitration as well, is very influential (Podoliak, 2012).

The US legal framework for mediation is the Uniform Mediation Act of 2001 and local acts, such as Mediation Rules from the United States District Court for the Western District of Michigan. This legal act has united 2.5 thousand different laws regulating mediation in different states. It provides for the basic concepts and terms of the procedure for mediation (Kratiuk, Chernyshov, 2013). It should also be noted that the Act has established legally that mediation has become an integral and growing part of dispute resolution processes in public institutions, dispute resolution programs in communities, commercial and business entities, as well as among private disputing parties. Therefore, in the US, in comparison with Ukraine, the institution of mediation is already an integral part of the legal system of the state. However, it should be emphasized that, in contrast to our country, in the US, the institution of mediation is already well-established and functions effectively.

In the UK, the mediation procedure was established by prominent John Harding (a project in Coventry) and a founder member of the Consortium for Restorative Justice Martin Wright (a project in Wolverhampton). In 1981, the National Victim Support published the First Survey of British Mediation Development, and in 1984, a new public organization, the FIRM, was created, recently renamed to Mediation U.K., which coordinated the regional practice of mediation (Golovko, 1998; Nestor, 2014). In addition, initiatives for mediation are implemented by public organizations such as the National Consortium for the Support and Resocialization of Offenders, Face to Face (York city). Their activities have attracted attention from the Ministry of the Interior, which began to provide organizational and financial support to relevant projects. These projects are financed from local budgets, as well as charitable organizations (for example, the Joseph Rowntree Charitable Foundation) (Golovko, 1998; Nestor, 2014).

In France, mediation services are provided by public organizations, and mediators shall be accredited by the public prosecutor, after which they can sign a contract with the Ministry of Justice of France on the provision of mediation services. They are free for process participants and paid from the state budget (Shynkar, 2016). In Austria, mediation services are provided by the Department of the Ministry of Justice and the Association of Probation and Social Work. The Association is an independent private entity subsidized by the Ministry of Justice and has its own management and quality control system for providing services. In Austria, mediators should have qualifications in the field of law, social work or psychology and undergo compulsory training in mediation programs (Shynkar, 2016).

Undeniably, in Germany, the mediation was "imported" from the US. In this country, the practice of commercial mediation has not yet been widespread, but

it has succeeded in forming a professional community of mediators and experts, who practice in the field of alternative dispute resolution, in addition, nowadays the theme of mediation is relevant and is under constant discussion in a wide range of circles. In Germany, along with extra-judicial mediation, judicial mediation gains in popularity, because it is harmoniously integrated into the justice system. Since 2004, judicial mediation has been successfully developing in the form of model projects implemented under the control of German justice authorities in courts of a number of lands of the country (Mediationsverein; Gafner, 2015).

Another European country under consideration is Belgium. The Belgian Law "On Mediation" as of June 22, 2005, defines mediation as a process that allows people, involved in a conflict, by their voluntary consent, to participate actively in solving problems arising from the crime through the help of an impartial third person in full confidentiality; the law emphasizes the confidentiality of the procedure. With intent, the Belgian government speaks of the mediation process, not the procedure. The Belgian law was adopted under the influence of the Council of Europe Recommendations on mediation in criminal matters and the Fundamental Decision of the Council of Ministers of the European Union, and many provisions of these legal regulations automatically transferred into legislative provisions. This concerns the principles of mediation such as voluntariness, confidentiality, immediacy, mediator neutrality, and mediation availability, its admissibility at all stages of the criminal process and autonomy within the framework of criminal justice (Sosiura, 2014). In Belgium, almost all mediators are professionals and shall meet high professional requirements. All mediators shall have education in social work no less than at the college level. Personal qualities are also important for the profession of the mediator, such as the ability to work independently, knowledge of the law. In order to engage in mediation activities, each applicant submits a written test and is interviewed. The mediator should not only carry out mediation but also continuously inform and cooperate with judicial and law enforcement agencies to stimulate the transfer of their cases to mediation (Sosiura, 2014).

It is worth noting that mediation is an extremely important component of the legal system of Poland. The first attempt to introduce mediation into Polish legislation was due to the adoption of the new Penal Code, which entered into force on September 1, 1998. In fact, one year was given to train practitioners to apply new criminal law. However, even after the consolidation of mediation in legislation, practitioners' views concerning its application differed due to the lack of clarity of legislative provisions, in particular, who should propose mediation and determine the timing of its conduct (Zemlianska, 2004; Podkovenko, 2016). Much attention is paid to the training of mediators in Poland. The Polish Center for Mediation, established

in 2000, has a major role in coordinating the mediation and training activities of specialists required, although the history of this association dates back to 1992. At present, the Polish Center for Mediation has more than 1000 members and more than 50 branches and subdivisions throughout the country and is engaged in mediation in all spheres of public life (including family, educational, civil, economic, labour, social, criminal law, cases on juvenile offenders, collective disputes) with the consent of the courts, the prosecutor's office, the police, individuals, companies, and other institutions. The Polish Center for Mediation actively promotes mediation in Poland as an alternative conflict and dispute resolution (Podkovenko, 2016).

In Ukraine, mediation institution is hampered. For example, in 2011, nearly eight draft laws on mediation were adopted in Ukraine (No. 8137 as of February 21, 2011; No. 10301 as of April 5, 2012; No. 10301-1 as of April 19, 2012; No. 2425a as of June 26, 2013; No. 2425a-1 as of July 3, 2013; No. 2480 as of March 19, 2015; No. 2480-1 as of April 9, 2015; No. 3665-1 as of December 29, 2015). Each of these draft laws contained a number of interesting but controversial moments, never implemented. Comparison of Ukrainian draft laws with already existing legislation of other countries shows that both domestic and foreign legislators focus on the issue of admission to the profession of a mediator. For example, the last draft law of Ukraine "On Mediation" stipulates that a mediator may be a person having attained the age of twenty-five, had higher or vocational education and passed professional mediation training, which must include 90 academic hours of initial education, including at least 45 academic hours of practical skills training (Pro mediatsiiu). Similar provisions are in the laws of other countries, in particular:

- in Austria, a professional mediator may be a person who has reached the age of 28 years, has a statutory professional qualification, is credible and has entered into an insurance contract for civil liability (Karmaza, 2017);
- in Albania, a mediator may be a person who has a university degree diploma, has reached the age of

25 years, has completed a course of training, has a license, is registered in the register of mediators and has no conviction for committing an intentional crime (Karmaza, 2017);

- in Kazakhstan, a professional mediator is required to have a higher education, to reach 25, to complete professional training, to be included in the register of professional mediators; an unprofessional mediator may be a person who has reached the age of 40 and whose data is registered as a nonprofessional mediator (Karmaza, 2017).

3. Conclusion

Therefore, it should be noted that in Ukraine, in comparison with other countries of Europe and the world, the key problem of mediation institution is the indecisiveness and inconsistency of the actions of the domestic legislator. While most countries improve the appropriate legislation on mediation constantly and effectively, as well as develop new methods, etc.; in Ukraine, the legislator has hardly progressed, avoiding decisive steps. Therefore, the problems of mediation institution in Ukraine reveal the controversial attitude of the Ukrainian authorities towards this institution. On the one hand, the country develops draft laws in this area constantly, and scientists are interested in this issue. On the other hand, the indecisiveness of the legislator concerning the adoption of the Law of Ukraine "On Mediation" is vague since only the adoption of the law will enable to identify practical problems in this area and to determine the vector of further actions. The impression is that, in this way, the authorities are afraid of losing control of society, which could solve a large number of problematic issues without state interference, which in turn results in the loss of funds for corruption by state authorities. However, today Ukrainian society is ready to implement this institution because mediation is an alternative dispute resolution, which enables to solve a number of social and economic problems.

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HARMONIZATION OF ECONOMIC AND LEGAL MECHANISMS FOR DEEPENING EU-UKRAINIAN RELATIONS

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Abstract. The policy of Ukraine for the establishment and development of relations with the European Union began in 1993, was carried out all the years of Ukraine's existence, and received intensive deepening with the beginning of the formation of an international treaty – the Association Agreement, which includes a list of legal, social, economic, and technical regulations, and Deep and Comprehensive Free Trade Area (DCFTA), in 2014 and its final signing in 2017. Political and economic objectives of the Agreement are of fundamental importance to the future of both Ukraine and the whole European region. The political goal is to implement European standards on the territory of Ukraine. This implies the introduction of fundamental European values, namely democracy, rule of law, respect for human rights and the standards of the European security system. The Agreement does not foresee membership in the European Union, however, does not exclude such an opportunity in the future. The economic goal is to help to modernize the Ukrainian economy by expanding trade volumes with the EU and other countries, as well as reforming economic regulation mechanisms in line with the best European practices. Subject to the improvement of the business climate, Ukraine will become attractive for foreign and domestic investment for further production for export to the EU and other markets of the world. Harmonization of standards and European regulations has become a much more important process than the fulfilment of strictly technical requirements and underlies the introduction of effective governance without corruption. In the process of harmonization of interaction, an adaptive institutional mechanism was formed (the highest level – annual Summits; the key coordinator is the Association Council, consisting of members of the Council of the European Union and members of the European Commission, and members of the Cabinet of Ministers of Ukraine; the level of operational coordination – the Association Parliamentary Committee, which includes members of the European Parliament, representatives of the Verkhovna Rada of Ukraine, and the Civil Society Platform; in order to coordinate processes on the territory of Ukraine, the Ukrainian government has introduced a few supervisory committees and commissions). The harmonization of the economic aspect of the mechanism has been determined in solving issues of openness of markets for duty-free import from Ukraine in April 2014, obtaining a visa-free regime with the EU, abolishing export-import tariffs, implementing European technical standards for food safety, phytosanitary norms, competition policy, service provision, and public procurement policy. The issues of further deepening of relations include a review of the terms for the introduction of regulations and legislative provisions before their actual implementation, stabilization of financial and economic processes in the country, and further development of democratic values and social institutions.

Key words: deepening EU-Ukrainian relations, EU-Ukraine Agreement, DCFTA, foreign policy, economic relations, harmonization mechanism.

JEL Classification: O19, F15, F42, R50

1. Introduction

International financial and political relations between Ukraine and the European Union were launched in December 1991, when the Minister of the EU Presidency – the Netherlands – officially recognized the independence of Ukraine on behalf of the European Union.

Ukraine's policy on the formation of relations with the European Union is based on the Law of Ukraine

“On the Principles of Internal and External Policies” (dated 01.07.2010). According to Article 11 of this law, one of the fundamental principles of Ukraine's foreign policy is “ensuring Ukraine's integration into the European political, economic, legal space in order to become a member of the EU” (Analytical note, 2015).

At the same time, Ukraine's intention to build relations with the EU on the principles of integration

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was announced much earlier. So, in the Resolution of the Verkhovna Rada of Ukraine as of 02.07.1993 "On Main Directions of Foreign Policy of Ukraine" Ukraine first declared its own European integration aspirations. In order to maintain stable relations with the European Communities, Ukraine has entered into Partnership and Cooperation Agreement, the implementation of which was the first stage of promotion to the associate and subsequently to its full membership in this organization" (Association Agenda, 2014).

Following the Revolution of Dignity, which was held in Ukraine in 2014, the Verkhovna Rada of Ukraine adopted the Resolution "On Confirmation of Ukraine's Course on Integration into the European Union and Priority Measures in this Field" as of 13.03.2014, which also confirmed the irreversibility of Ukrainian course on European integration, which aim is to become a member of the European Union.

The deepening of relations between Ukraine and the European Union (EU) has resulted from the formation of an international treaty – the Association Agreement, which includes a list of legal, social, economic, and technical regulations, and Deep and Comprehensive Free Trade Area (DCFTA). Most of the provisions of the Association Agreement and the DCFTA are of a purely technical nature, and its signing in 2014 was an act of strategic and geopolitical importance in the history of Ukraine.

The losses Ukraine has suffered as a result of its political decisions are prohibitively large in terms of territory, economy and, above all, human life, but so far, the country's resoluteness to succeed remains steady.

Political and economic objectives of the Agreement that are of fundamental importance to the future of Ukraine as an independent and secure European state are completely understandable. The political goal is to deepen the implementation of the "European choice" of Ukraine. This implies the introduction of fundamental European values, namely democracy, rule of law, respect for human rights and the standards of the European security system. The Agreement does not provide for membership in the European Union, but this possibility is not excluded in the long run.

The economic goal is to help to modernize the Ukrainian economy by expanding trade volumes with the EU and other countries, as well as reforming economic regulation according to best European practices.

Subject to the improvement of the business climate, Ukraine will become attractive for foreign and domestic investment for further production for export to the EU and other markets of the world.

The Agreement regulates the modernization of Ukraine by bringing standards and regulations in line with EU standards, which in general are in line with international best practice. Harmonization of standards and European regulations is a much more important

process than the fulfilment of purely technical requirements and it underlies the introduction of effective governance without corruption.

The EU has almost fully opened its market for duty-free imports from Ukraine in April 2014. For a number of products, transitional periods are used. This means opening up more export opportunities for the Ukrainian economy. Gradually during several years, starting from January 2016, Ukraine cancels its import tariffs for EU countries.

The Association Agreement and the Deep and Comprehensive Free Trade Area (DCFTA) Agreement will enable Ukraine to become one of the medium or large economies of the EU with a highly developed and diversified industrial structure.

The technical requirements for entry into the EU market are high and rigorous, however, they are applied professionally and fairly without any (unlike other) geopolitical manipulations.

Financial support, including EU grants and loans or investments from European financial institutions, is provided through investment and technical support in the event of high adaptation costs.

The provisions of the Agreement and the DCFTA are numerous and complex, therefore, Ukraine and the EU will have to go through the complex path of process-oriented structural changes.

The mechanism for fulfilling obligations is rather flexible due to the procedures for extending the terms and amending the list of legislative acts subject to mutual consent of the Parties.

The authors determined the purpose of a detailed consideration of legal, economic mechanisms for harmonizing standards and regulations for deepening EU-Ukrainian relations and identifying the most optimal ways for mutually beneficial development.

2. The methodology of research

The Association Agreement between the European Union (EU) and Ukraine is a comprehensive treaty covering Ukraine's political and economic relations with the EU. The trade section of the Agreement provides for the establishment of Deep and Comprehensive Free Trade Area (DCFTA), which is an important component of the agreement as a whole.

The Agreement was initialled in March 2012 and would have to be signed at the EU Summit in Vilnius in November 2013. But at the last moment, President Yanukovich has decided not to sign it, which caused the political events on Maidan, and subsequently Russia's aggression in the form of the annexation of Crimea and the hybrid war in the east of the Donbas. The signing of the Agreement took place in two stages later. Initially, the political part (in March 2014, Prime Minister Arseniy Yatsenyuk) and then the economic part (in June 2014, newly elected President Petro Poroshenko) were signed.

The Verkhovna Rada of Ukraine and the European Parliament ratified the Agreement in September 2014, and the EU member states, except for the Netherlands, – during 2015 and early 2016. In the Netherlands, the ratification process was interrupted by the negative result of the referendum, which took place on April 6, 2016. However, the temporary application of the Agreement remains unchanged. The Netherlands (and hence the EU as a whole) completed the ratification on May 30, 2017.

The provisional application of the Agreement began in November 2014, in addition to the DCFTA, the “provisional” application of which began in January 2016, after a one-year delay at the request of Russia. The final version of the Agreement came into force on September 1, 2017 (EU-Ukraine, 2017).

The Agreement is a “mixed agreement” (that is, it contains provisions within the competence of the EU Member States), all EU member states have also ratified it in accordance with their national legislation and procedures.

In order to avoid delays in ratification, the EU and Ukraine have agreed to apply large parts of the Agreement on an “interim basis.” This applies to most of the provisions that fall within the competence of the EU.

The agreement creates a comprehensive institutional framework that plays an extremely important role in the monitoring and implementation of certain provisions of the Agreement. Annual EU-Ukrainian summits receive additional, ever clearer legal frameworks that did not exist before.

The highest level of political dialogue is confirmed at the summits, which set out general rules for the implementation of the Agreement, as well as an opportunity to discuss any bilateral or international issues of mutual interest. The last Ukrainian-EU summit took place on 12-13 July 2017 (for the first time since the ratification of the Association Agreement). The discussion was devoted to the importance of ambitious reforms, especially in the fight against corruption, the introduction of the EU visa-free regime for Ukrainians, and the conflict in the East of Ukraine (Emerson, Movchan, 2018).

Below the summit level, the key institution is the Association Council, consisting of members of the Council of the European Union and members of the European Commission, on the one hand, and members of the Cabinet of Ministers of Ukraine, on the other hand. The Association Council meets at least once a year at ministerial level and is the main institution monitoring the application and implementation of the Agreement. In addition, the commission considers any other key issues relating to the relationship between the two parties. Since the entry into force of the Agreement, the Association Council met four times. At its last meeting on December 8, 2017, the EU and Ukraine welcomed the progress made in implementing a comprehensive

reform program, assessed the steps taken to implement the Association Agreement, and emphasized the need to intensify efforts to implement reforms. In particular, the Association Council considered and discussed ways of further development of reforms that were jointly developed by the EU and Ukraine within the Association Agenda, welcoming the successes in decentralization, the reform of public administration, the adoption of the electoral code and the privatization law in the first reading (EU-Ukraine, 2017).

The Association Council may make “binding” decisions when provided for in accordance with the Agreement. This means that the EU (and its member states) and Ukraine are obliged to implement these decisions. In addition, it may issue non-binding recommendations, such as the “Association Agenda” document, which details the implementation process. Both the decision and the recommendations are taken with the consent of the parties (European Parliament, 2009).

The scope of decision-making powers is rather limited since the joint organization can only make decisions that fall within its competence under the Agreement. The Association Council receives assistance from the Association Committee consisting of representatives of the parties at the level of senior officials that, in turn, receives assistance from the specialized subcommittees (EU-Ukraine, 2015).

At its first meeting, 15.12.2014, the Association Council approved the personal regulations, as well as the regulations of the Association Committee and subcommittees. In addition, Subcommittees on Justice, Freedom and Security and on Economic and Other Sectoral Cooperation were created. In accordance with the Agreement, a Trade Committee has already been established to consider all issues related to the DCFTA, supplemented by several subcommittees (for example, on Customs Cooperation and on Trade and Sustainable Development). Finally, the Agreement established the Parliamentary Association Committee, which includes members of the European Parliament, representatives of the Verkhovna Rada of Ukraine and the Civil Society Platform (EU-Ukraine, 2015).

3. Results and discussion

After the political events of Maidan during 2013-2014, Ukraine returned to the goal of becoming a truly democratic state, which was confirmed by democratic parliamentary and presidential elections. However, there is an urgent need to further improve the functioning of democratic institutions. The Association Agenda demands, among other things, the creation within the constitutional reform of an effective system of checks and balances between the branches of power and the strengthening of local self-government and regional authorities. In 2016, the first part of the constitutional reform was adopted – judicial reform.

However, important constitutional changes related to decentralization remain blocked by the Verkhovna Rada. In addition, the distortion of certain political decisions is of concern over the influence of non-transparent groups of interests both in the parliament and in the government.

The success of the anticorruption policy is a prerequisite for the overall success of the Agreement and the economic future of Ukraine. Many heads of the Association contribute to this goal, for example, in terms of transparency of government procurement, however, the Ukrainian government needs to solve a number of key issues related to the functioning of the judicial system and the prosecutor's office and several anticorruption institutions. There are also problems of forming the real political force at the highest level in relation to the implementation of anti-corruption policy in specific situations.

Obtaining a visa-free regime with the EU, in the first place, was to introduce a comprehensive action plan for the general liberalization of the visa regime. In December 2015, the European Commission recommended the introduction of a visa-free regime, which began in July 2017. This was the most positive achievement for both parties, as for Ukraine, in terms of implementing the EU requirements, and so for the EU itself, given the extreme political sensitivity of all aspects of border management and migration policy (European Parliament, 2017).

Cancellation of tariffs is the classical economic basis for establishing a free trade area. The EU has largely weakened the market access restrictions in April 2014 by granting Ukraine "autonomous trade preferences" and abolishing 94.7% of its import duties. According to the terms of the full-time provisional application of the DCFTA, which began on January 1, 2016, Ukraine should gradually abolish its customs duties on imports from the EU for seven years. These measures initially had only limited impact on exports from Ukraine to the EU due to the cessation of production in the occupied territories, logistical problems, and a downward price trend in the world commodity markets. However, recently, exports to the EU have grown rapidly, jumping by 30% in 2017. At the same time, the EU share in Ukrainian exports and imports increased due to a sharp decrease in trade volumes with Russia. The structure

of exports to the EU has shifted towards machines and equipment, fats and oils, ready-made food products, and products of animal origin (Emerson, Movchan, 2018).

The use of duty-free tariff quotas for agricultural products has increased as Ukrainian producers gradually solve problems related to the requirements of food safety and the weak demand for their products.

The main sector for which special protection measures have been introduced is the automotive industry of Ukraine, which will continue to be blocked by the growth of imports from EU countries up to 15 years. This has increased additional costs from consumers but it is planned to intensify the development of Ukrainian production in the short-term. The Agreement contains provisions relating to antidumping measures, subsidies, and special protective measures to secure the importing state's economy against serious damage or threat of such damage. Earlier, the EU widely applied antidumping duties to Ukrainian steel and bulk chemical products, however in the last 2017-2018 such measures are much less common. In October 2017, the EU introduced a final antidumping duty on imports of steel products from Ukraine and a number of other countries. There are certain problems of Ukraine's inconsistent trade policy with some violations of the provisions of the DCFTA (EU-Ukraine, 2017).

The DCFTA also includes important measures to ensure fast and efficient customs services. Ukraine is gradually complying with its legislative obligations in accordance with the new Customs Code, most provisions of which comply with the requirements of EU legislation. Nevertheless, the main task for border posts on the borders with the EU remains to work without delays and corruption.

Adoption of European standards for industrial, agricultural, and food products is extremely important for modernizing and improving the competitiveness of the economy. Ukraine has defined a strategy aimed at eliminating technical barriers to trade with the EU by bringing its legislation in line with the EU main directives and adopting a very large number of EU standards. In the agro-food sector, Ukraine is launching a comprehensive strategy for the implementation of EU sanitary and phytosanitary standards (Decision, 1/2014).

Table 1

Priority principles of rule of law and foreign policy

Section of the Agreement	Efficiency of implementation
1.1. Political institutions	Active creation of new institutional structures, the presence of structural weaknesses and the influence of oligarchs
1.2. Human rights	The human rights standards are being actively developed, structural adjustments are introduced into the legislation (except for the occupied territories)
2.1. Judiciary	Institutional reforms have a limited result
2.2. Corruption	To create active positive legislative and institutional shifts, there is not enough political freedom
2.3. Movement of persons	Liberalization of the visa regime is a major positive step
3. Foreign policy and security	The EU overwhelmingly supports Ukraine, continuing political and economic sanctions

Source: compiled by the authors based on EU-Ukraine (2015); EU-Ukraine (2017)

Table 2

Deepening economic relations and free trade area

Section of the DCFTA Agreement	Efficiency of implementation
4. Market access for goods	Significant growth in the export of goods in the EU, there are certain violations of the DCFTA
5. Trade protection measures	The EU has introduced an anti-dumping duty on some steel products
6. Customs services	Slow improvement of legislation, which in practice is not always effective and corrupt
7. Technical standards	Preparation for ACAA negotiations is in progress. Harmonization of EU standards and regulations slowed down in 2016–2017
8. Food Safety (SPS)	An integrated SPS strategy is implemented, vital for the agro-food sector; the expansion of individual access to the EU market for products of animal origin at the level of products and companies
9. Services	Ukraine is more liberal than the EU, so the approximation of legislation to EU requirements is slow
10. Public procurement	Significant progress has already been made, but some rules of the new legislation contain risks of levelling or reversal
11. Intellectual property rights	Legislation has been improved, but the weak practicality of its application causes dissatisfaction on the part of the EU and the USA
12. Competition policy	Improvement of the statutory framework has not yet been reflected in the definition of the practical effectiveness of the antimonopoly policy
13. Statistics	The statistical system is actively developing, closer to the EU requirements

Source: compiled by the authors based on EU-Ukraine (2015); EU-Ukraine (2017)

Subsequently, it will provide high standards for the safety of food products for Ukrainian consumers and will create better opportunities for Ukrainian enterprises to export their products to the EU and to other markets in the world. Progress in the implementation of these two policy areas concerning technical regulations and standards for industrial and agricultural goods is a significant step but not as fast as it was planned.

The competitive and diversified service sector is of great importance for the Ukrainian economy. The Agreement contains detailed elaborated, comprehensive provisions on liberalization commitments and reservations, and the Ukrainian side has a greater scope for liberalization commitments and fewer reservations than the EU.

Within the framework of the Agreement, work is underway to fulfil Ukraine's obligation to bring its legislation in the field of public procurement to the relevant EU directives. The government is already implementing e-procurement that proves to be useful in terms of improving efficiency and reducing the corruption component. The system of intellectual property rights in Ukraine has several disadvantages compared to advanced European and international practices, which is a source of great concern from the EU and the USA. It is expected that these shortcomings will be eliminated in the new legislation that will be adopted and implemented.

Ukraine has already largely brought its competition policy into line with EU standards and international standards. In addition, further legislative and institutional reforms are foreseen.

The financial sector of Ukraine is under strong pressure determined by the need to maintain the stability of the banking system and provide external debt servicing. However, the government and the central bank continue to implement a comprehensive

long-term program to update regulatory acts on the basis of EU legislation as an important component of the overall process of reforming the economy. From the point of view of macroeconomic policy, during the years of its independence, Ukraine has achieved only small success in reforming its economic policy, demonstrating unsatisfactory results, with the exception of periods of very favourable commodity prices (Law of Ukraine №2210-VIII, 16.11.2017).

In 2014–2015, Ukraine experienced a severe economic crisis and suffered infrastructure losses over Russian aggression, which further aggravated the negative consequences of the global economic crisis. Nevertheless, moderate growth resumed in 2016 and 2017 (respectively 2.4 and 2.5%). The EU provides significant financial assistance on various channels, including macroeconomic loans complementary to the IMF funds, as well as budget support and investments from the EIB and the EBRD. In the period of 2014–2020, the amount of this aid may reach 12.8 billion euros (Emerson, Movchan, 2018).

Prospects and priorities of reforms and approximation of legislation.

From the above, it follows that many questions will arise as to the terms of approximation and implementation of certain acts of EU legislation, as well as how and when it is necessary to update the list of legislative acts intended for implementation in the financial sphere. Financial regulators (NBU, National Commission for the State Regulation of Financial Services, National Securities and Stock Market Commission) have jointly drawn up a detailed action plan: Comprehensive Program for the Development of Ukraine's Financial Markets until 2020, which includes an obligation under the Agreement with the EU, as well as obligations to others international partners and, of course, takes into account internal needs (Law of Ukraine

Table 3

Deepening economic cooperation

Section of the Agreement	Efficiency of implementation
14. Macroeconomics	The macroeconomic situation tends to intensify and recover, but in recent years, the pace has slowed down
15. Financial services	Structural reforms are rapidly developing
16. Transport	Adaptation of legislation and infrastructure restructuring are very slow
17. Power engineering	Diversification of gas supply, reforming in a radical state
18. Environmental protection	Achieving the EU's recommended regulations is not possible within a specific timeframe
19. Digital technology	The ICT sector is developing rapidly but the legislation is very slowly adapting to the EU
20. Consumer protection	Gradual adaptation of legislation; development of institutional capacity
21. Corporate law	Major legislative reforms have been carried out to adapt to EU legislation
22. Agriculture	Limited obligations, controversial land legislation
23. Social policy	The main regulations comply with EU rules and standards
24. Education and culture	A relatively large resource of human capital, although there are certain problems
25. Science and technology	Participation in the program "Horizon 2020"; significant advantages
26. Agencies and programs	Cooperation is on a gradual development
27. Cross-border cooperation	Important projects with Poland, Slovakia, Hungary, and Romania, however, there are some problems with implementation
28. Public society	Establishing NCAs with the ability to protect democratic transformations, but they are under a certain pressure

№2210-VIII, 16.11.2017; Law of Ukraine "On Consumer Lending" №1734-VIII, November 15, 2016).

In early 2017, the regulators revised the program to postpone the deadlines for implementation from 2019 to 2021 in order to take into account slow progress in adapting legislation and delays in drafting bills. The program was also revised to update the EU legislation that had to be implemented in view of the evolution of the EU legal framework.

A more detailed list of current deadlines set at the beginning of 2017 is given in Table 4. However, further revisions are conducted taking into account the large delays: by February 2018, only three of the ten directives and regulations that were expected to be harmonized in 2016–2018 have been implemented at least partially.

In particular, a new Law on Consumer Lending was adopted in 2016, which largely complies with the Consumer Credit Directive (2008/48/EC). The new law, aimed at facilitating business and attracting investment by securities issuers (2017), contains updated rules on issuance of securities and public securities offerings, information disclosure rules for securities issuers, and regulation of professional securities market participants. It implemented a part of the MIFID/MIFID II rules. The NBU has achieved significant progress in changing banking supervisory regulation that brought it closer to the EU standards.

Despite the underdeveloped financial markets and the slow progress in the implementation of EU standards in Ukrainian legislation, the NBU and the Securities Commission are gradually introducing the latest EU legislation without waiting for the official renewal of the obligations under the Agreement. The Financial Market Development Program of Ukraine contains a schedule for the implementation of current EU financial services legislation, as well as new EU legal provisions such as directives 2015/2366, 2015/849, 2014/59/EC etc.

When the Association Agreement was signed, the regulatory approximation in the financial services sector was scheduled with the ultimate goal of introducing a full regime for the EU internal market.

This would allow Ukrainian banks and other operators of financial services markets to provide services in the EU on the same basis as companies from EU countries. So far, the introduction of such a financial mechanism is not possible, as the EU is close to a centralized model of supervision in the banking sector and other financial services sub-sectors. In the banking sector, the implementation of EU standards could be confirmed by a significant share of subsidiaries of EU banks (among non-state banks). In addition, the obligations under the Association Agreement coincide with the NBU's plans for the implementation of the prudential regulation of Basel III (Resolution NBU, 2015).

4. Conclusions

Summarizing the research, the emphasis is placed on the main points of the formation and development of cooperation processes and the establishment of relations between the EU and Ukraine, as well as the opportunity to deepen such relations on mutually beneficial terms.

The Agreement on association and cooperation between Ukraine and the EU entered into force on September 1, 2017, after the delay in ratification in one of the member states (the Netherlands). It aims to create a common institutional economic, legal, and political interaction mechanism that will ensure monitoring and regulation of the implementation of the Agreement and will create a platform for conducting a mutually beneficial political dialogue.

The temporary application of the ratification of individual standards and interaction regulations began on November 1, 2014, except for the provisions of the

Table 4

Deadlines for the implementation of EU legal regulations in accordance with the 2020 Program

2016-2018
1606/2002 (IAS Regulation, 2016) *
2013/34/EC (Accounting Directive, 2017) *
2009/103/EC (Directive on motor insurance)
2002/92/EC (Directive on insurance mediation)
2003/41/EC (Directive on occupational retirement provision)
2014/51/EC (Omnibus II, 2018)
648/2012/EC (Regulation on the infrastructure of the stock market)
2015/847 (Regulation on information accompanying transfers of funds)
2015/849 (the fourth Directive on the fight against money laundering)
2008/48/EC (Directive on credit agreements for consumers) *
2019-2020
2014/56/EC (amending Directive on audit)
2009/65/EC (UCITS IV)
2007/16/EC (Directive on eligible assets)
2009/110/EC (the second Directive) on electronic money
2003/51/EC (Directive on the modernization of accounts)
537/2014 (Directive on audit)
2009/138/EC (Solvency II)
2013/36/EC (CRD IV)
2014/49/EC (consolidated version of Directive on deposit guarantee schemes)
2014/59/EC (Directive on the regulation of troubled banks)
97/9/EC (Directive on investor-compensation schemes)
2014/57/EC (Directive on market abuses)
596/2014 (Market abuse regulation)
1060/2009 (Regulation on credit rating agencies)
86/635/EC (Directive on bank accounts)
2006/46/EC (Directive on company reporting) *
2007/14/EC (Directive on transparency)
2003/71/EC (Prospectus Directive). 2008/11/EC, 809/2004, 1787/2006, 1289/2008
2004/109/EC (Directive on the transparency of listing companies)
2010/43/EC, 2010/42/EC, 583/2010, 584/2010 (ancillary acts of UCITS)
2014/17/EC (Directive on mortgage lending, 2017) *
2001/65/EC (Directive on fair value)
1569/2007/EC (Equivalence of accounting standards)
91/674/EC (Directive on insurance accounts)
2001/24/EC (Directive on bankruptcy)
2014/65/EC (MiFID 2). 2002/87/EC (Directive on financial conglomerates)
2020-2021
2015/2366 (the second Directive on payment services, 2020)
575/2013 (CRR IV)
2013/36/EC (CRD IV)
98/26/EC (Directive on settlement finality)
2009/44/EC (amending Directive on settlement finality)
909/2014 (Regulation on central securities depositories)
2002/47/EC (Directive on financial collateral arrangements)

Note: * partially or fully implemented.

Source: compiled by the authors based on EU-Ukraine (2015); EU-Ukraine (2017); Emerson M., Movchan V. (2018)

DCFTA, the application of which began only on January 1, 2016. Delay with the DCFTA appeared as a result of a trilateral meeting between the EU, Ukraine, and Russia on September 12, 2014, where a decision was made (under Russian pressure) to postpone the implementation. However, the autonomous trade preferences of the EU (i.e., the unilateral introduction of the tariff section of the provisions on the DCFTA) have been applied during the interim period. Therefore, in general, as a result of delays, the loss of economic and political processes was insignificant. The scope of the temporary application is extremely broad and encompasses almost all of the provisions on the DCFTA and the main sections on general principles, political dialogue, rule of law, and numerous issues regarding sectoral cooperation.

The Supervisory Board of the Association has broad powers to amend the annexes of the Agreement but not its main text. These institutional arrangements began to work after the Association Agreement entered into force.

At the time of executing the Agreement, the financial sector of Ukraine was in a state of financial instability of the banking system and uncertainty about the financial aspects of servicing external debt after the emergence of an artificial financial crisis. However, the Ukrainian government continues to implement a comprehensive long-term program of regulatory modernization of the financial sector, using EU legislation as a basis. The EU and the Association for Deepening Relations consider it an important part of the process of modernizing the economy as a whole.

EU countries recognized that in the process of approximation to the EU standards, the original timetables were too ambitious, and some new EU legal provisions, such as MiFID 2, seemed too complicated for a relatively modest level of development of financial markets in Ukraine. Yet there are good reasons for continuing to adapt the EU's international practices to Ukrainian legislation. The commitment to the Association Agreement can be the basis for improving the situation in the financial, economic, political, and social sectors. Nevertheless, the government of Ukraine must take a fresh look at ways of further reforming the financial sector, taking into account the reduced prospects for providing a complete regime for the domestic market as the ultimate goal of approaching the requirements of the Association Agreement. This may involve increased flexibility in the implementation of commitments under the Association Agreement.

The Agreement has also launched political goal, important for the European region, it is to ensure that Ukrainian democratic institutions adhere to the basic European values. The Agreement provides for close monitoring of democratic institutions, including in the context of the rule of law and human rights. Respect for democratic values is considered in the Agreement so essential that, in the event of their serious violation, the Agreement may be terminated, in contrast to the violation of other regulations.

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ASSESSMENT OF EMPLOYEES' CREATIVE ACTIVITY IN MODERN CONDITIONS OF INTELLECTUALIZATION OF THE ECONOMY

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Abstract. Current trends in the world economy determined the innovative vector of its development on fundamentally new bases: information and intellectual technologies, knowledge, and creativity. In modern conditions, enterprises and countries can increase their level of competitiveness through implementation policies supporting the creative activity of employees. The *purposes* of the article are to investigate the essence of creativity, the theoretical foundation of employee's creative activity, its relation to art and methodological bases of employee's creative activity evaluation taking into consideration the level of world economic development. *Methodology.* The theoretical and methodological frameworks of the study are research results of scientists in the field of employees' creative activity investigation and own research proposals. In order to achieve the goal of the article, the following methods are used: generalization – in the critical analysis of scientific approaches to establishing the definition of employee's creative activity; comparison – in the process of comparing creative activity and art; index method – to propose the methodology of employee's creative activity assessment; systematization – to identify elements of the relative index of creative potential; cause and effect method – for obtaining final conclusions. *Results.* The creative activity of employees is an external manifestation of intellectual and cognitive abilities of a person, aimed at the changes in tangible, intangible or managerial objects, which are expressed in the generation of new ideas and their implementation in a practical result. It also manifests in the creation and application of innovations for the purpose of obtaining an economic or social effect. It is closely related to high intelligence, art, self-evaluation and motivation of the employee. The study also determines two main indexes of evaluation of the creative activity of employee – index of creative activity and relative index of creative activity. The relative index of creative activity includes such elements as choice rationality of the sphere of creative energy manifestation, biosocial indicator of creative energy, index of employee's health, index of socio-psychological state of an employee, professional experience of employee, level of employee's intelligence, and index of compliance the workplace with the standards. *Practical implication.* The proposed methodology of employee's creative activity assessment can be applied at enterprises in order to evaluate its current level and to improve the efficiency of the remuneration system. It is also clarified that increasing the creative activity of employees will raise the efficiency of the system of enterprise's creative management as a whole. *Value/originality.* The investigation underlines the peculiarities of employee's creative activity from the psychological and economic points of view and describes the methodology of employee's creative activity assessment, as well as evaluation efficiency of the system of an enterprise's creative management. Further researches should be aimed at the improvement of motivation mechanism for employee's creative activity encouraging as a tool for increasing competitiveness of enterprises.

Key words: creative activity, employee, art, economy, enterprise, creative component, index of creative activity, intelligence.

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1. Introduction

World economic trends prove that the current model of economic development is formed on fundamentally new bases: information and intellectual technologies, knowledge, and creativity. They are radically modernizing traditional models and determine the future of economic development of a country.

Creative industries, innovations, and knowledge are gradually replacing the traditional spheres of the economy. The dynamic growth of creative activities and their profitability change approaches to the formation of strategic directions of economic development. In regard to this, issues of setting conditions for the generation of creative ideas and the formation of a special creative environment become highly relevant. In such a case, the creative environment emphasizes the disclosure and further development of the creative potential of employees. It also should be noted that employees' creative activity is one of the most important elements of the resource potential of an enterprise and it results in more effective use of all other types of enterprise's resources.

Great attention is paid to the matter of employees' creative activity in scientific papers of such foreign scholars as G. Hawkins, R. Florida, E. Hagen, J. O'Connor, A. Maslow, T. Fleming, and others. Issues related to the development of the creative economy and to the assessment of the creative potential of labour resources have been presented in some papers of Ukrainian scientists: I. Vakhovich, O. Chul, S. Kyryzyuk, V. Lepsky, M. Kovbatiuk, Kh. Loshkovskaya, T. Bozhydarnik, L. Melnik, A. Mikhno, O. Yamstremskaya, O. Bardadym, and others.

The majority of investigations are focused on the key features of the transition to a creative economy. These are the ability to combine creative thinking, innovative ideas, culture and the advanced technologies, as well as to establish a new type of market relations in order to improve the quality of life and to ensure dynamic socio-economic development. Therefore, the foundation of society's development should set up favourable conditions for the development of the creative potential of an individual (Vakhovich, 2014).

According to the draft of "Human Development Concept of Ukraine" (up to 2020), intellect, education, professional experience, social mobility, and the ability to creative and innovative thinking in professional and social life are recognized as the main components of national wealth and the main resources of further development.

Despite the significant contribution of foreign and national scholars into the investigation of theoretical background and practical issues of creative economy, further research in the field of creative activity of employees is required. Analysis of scientific researches shows lack of uniform approach to the substantiation

methodology for evaluation of employees' creative activity in terms of modern intellectualization of economy.

The aims of the article are to investigate the essence of creativity, the theoretical foundation of employee's creative activity, its relation to art and methodological bases of employee's creative activity evaluation taking into consideration the current level of world economic development. For this purpose, the investigation underlines the peculiarities of employee's creative activity from the psychological and economic points of view and describes the methodology of employee's creative activity assessment, as well as evaluation efficiency of the system of enterprise's creative management.

2. The concept of creative activity of employee and its main elements

The growing need of the economy in employees who are capable of a creative approach to any tasks, of the nonconventional and qualitative solution to existing problems is caused by the acceleration of society's development and the necessity to live and work in rapidly changing conditions (Yastremskaya, 2013).

Creativity (from Latin *creo* – to create) – the ability to create, which predetermines a new unusual vision of a problem or a situation.

Creativity and its importance for the country's economic development are the subjects of many discussions and investigations.

A. Maslow (1954) divides creativity into three types: the first level is the result of the action of primary motives; complex mental processes of analysis, systematization, and comprehension are the second level; "integrated" creativity integrates two previous types.

F. Barron, D. Harrington (1981) define creativity as a new approach and a result of emotional distortions that misrepresent the "normal" vision of the world or as the ability to bring something new to experience.

Alan Iny (2014), Senior Specialist in Creativity and Scenario Planning at Boston Consulting Group and co-author of the book "Thinking in New Boxes" (2013), emphasizes that creativity means changing the way of seeing the world and can give you the opportunity to see new products, rethink business processes or transform the entire industry.

Jordan Ayan (2012), Executive Director of the international consulting company "Create-It!", an expert on creativity and the author of the book "10 Ways to Free Your Creative Spirit and Find Your Great Ideas" (1996), underlines that creativity has become one of the most important personal and business strategies for prosperity and success. Creativity is considered to be as a form of art, not a business tool. He thinks that creativity is as a source of starting companies' profit growth. Therefore, according to his opinion, creativity can be regarded as a powerful business tool which

enables successful management of employees and the company as a whole.

The natural creative component is laid down at the genetic level of each person and its nature differs in size and vector. Thus, some employees have creative abilities in the non-productive sphere, the others – in the material transformation of the environment (the creation of material and economic products), some of them have an advanced vector, aimed at the spiritual transformation of the world (the creation of spiritual or economic-intellectual products).

Having a certain level of creative component, any person firstly reflects in his mind the investigated segment before performing the task. This segment can be changed or remains unchanged in the future. At this stage, there is a creative component that can potentially transform the surrounding world into a subject. This component depends on the level of creativity of any person and can be measured, for example, by the level and volume of knowledge of the surrounding world.

The researches have shown that creativity is often identified as art. So, the process of art is a search for new or unknown things in the world. Psychologists define art as an activity, which generates new material and spiritual values. It is noted that the distinguishing features of art activity are originality and socio-historical uniqueness. A deep personal vision expresses in the art work and, without it, the subject of creativity doesn't practically exist. It reveals the need for personal self-expression, self-actualization, and expansion of creative abilities (Tututshkina, 2009). The components of art activity are artistic expression, art position, and work.

Self-expression in art is manifested in what way a person responds to the environment, trying to express own attitude, motives, and feelings in the daily activities. Art position means an open, flexible and independent way of responding to the environment. Work of art is created as a new form.

A person in art receives and conveys information, has an impartial position, possesses a positive interest and the ability to listen and especially important quality of such a person is the desire to improve own goals, views, and motivations.

We agree with the conclusions of the psychologists but the above-mentioned qualities of the person in art do not adequately correspond to the essence of the intellectual and creative activity of the employees of an enterprise, which is the primary source for intellectualization of economy and is associated with advanced technologies and production of high-tech products.

There is a significant correlation between creativity and intelligence. Hence, an employee with an inadequate level of IQ as the main intelligence tool may not be able to generate and implement creative ideas. At the same time, the maximum IQ value does not guarantee the maximum creative potential of the employee. That is why it is not a sufficient condition for it.

To sum the views on creativity up, we can distinguish three main approaches to determining the creativity of employees of an enterprise:

- all employees can be creative (Maslow, 1954; Taylor, 1988; Mikhno, 2017);
- only persons with art skills are creative (Bogoyavlenskaya, 2016; Efroimson, 2002; Tututshkina, 2009; Melnyk, 2017);
- creativity is inherent only to employees with high intelligence (Spearman, 1927; Terman, 1958; Wechsler, 1958; Bozidarnik, 2015).

The growth of new knowledge is the primary source of future environmental transformation, which can be realized or not realized in practical activity in the future as a result of using the creative component in order to achieve set goals. This task is solved by the creative activity of an employee, which is aimed at the management of this process through the search for rational ways.

The creativity of an employee as the ability to art is not a sufficient condition for his effective activity since the criterion is not only the generation of creative ideas but also the possibility of their implementation in order to obtain the appropriate effect.

The considerations mentioned above require a generalization of the concept of creative activity. Thus, the creative activity of employees is an external manifestation of intellectual and cognitive abilities of a person, aimed at the changes in tangible, intangible or managerial objects which are expressed in the generation of new ideas and their implementation in a practical result. It also manifests in the creation and application of innovations for the purpose of obtaining an economic or social effect. It is closely related to high intelligence, art, self-evaluation, and motivation of the employee.

3. Methodological tools of employee's creative activity assessment and enterprise's creative management system evaluation

"...There are a lot of people who create new things or defended the old ones..." (Barron, 1981), therefore, changes as a result of creative activity are the subject of further economic operations. They can be expressed through the indicator KN . This indicator satisfies the needs of market subjects (Bogoyavlenskaya, 2016).

$$KN = Nn - No,$$

where: KN – an indicator of changes increment, which manifests in the new state of the object of creative activity (Nn) in comparison with the existing state (No).

We also propose the work of human intelligence, which is manifested through the generation of creative ideas, to be evaluated through the index of creative activity Ka .

$$K_a = \frac{KN}{t} \cdot K_n,$$

where: t – time spent by an employee on implementing changes;

K_n – relative index of the creative potential of an employee.

The economic indicator of the creative activity of an employee (K_a) is expedient to express in the changes of products as a result of creative ideas to the duration of time spent on their implementation.

Then the economic indicator of the creative activity of an employee should tend to its maximum value (K_{a_max}):

$$K_{a_max} = \frac{KN_{max}}{t_{min}} \cdot K_{n_max}$$

The degree of creative activity of an employee depends on a significant number of variable internal and external factors, which can minimize or maximize the creative potential of an employee. That is why we propose to take into account the influence of the relevant factors in calculating the relative index of creative potential as follows:

$$K_n = \frac{K_1 + K_2 + K_3 + K_4 + K_5 + K_6 + K_7 + \dots + K_m}{m}$$

where K_1 – choice rationality of the sphere of creative energy manifestation;

K_2 – a biosocial indicator of creative energy;

K_3 – index of employee's health;

K_4 – index of the socio-psychological state of an employee;

K_5 – professional experience of the employee;

K_6 – the level of employee's intelligence;

K_7 – index of compliance the workplace with the standards;

K_m – index represents the possibility to extend the number of factors;

m – a number of factors.

It should be noted that the level of changes in the indexes, which are included in the calculation of the relative index of employee's creative potential, ranges from 0 to 1.

Thus, the relative index of employee's creative potential (K_n) depends on the choice rationality of the sphere of creative energy manifestation and is the correct place of creative activity. If a particular employee does not show creative abilities at a particular workplace, this indicator is 0. This situation may be due to the fact that he does not match his job as each type of intelligence has the proper types of tasks, which can be managed in accordance with his psychotype. Otherwise, if an employee shows creative ideas, this indicates the correct choice of workplace and the index will be equal to 1.

A biosocial indicator of creative energy is characterized by a number of abilities of an employee in spiritual (K_s), material (K_t), and managerial (K_o) spheres and can be defined in relative units:

$$K_2 = K_s + K_t + K_o$$

It should be noted that there are more than 2000 tests. They can be applied to assess the biosocial index: physiological tests, projective tests, personal questionnaires, and others.

The biosocial factor of the creative activity of employees includes the genetic and social components, which explain the causes of the industrial revolution and it took place only over 200 years ago. The previous millennium was characterized by a certain technical "stagnation" because the biological or genetic component of the creative activity of certain prominent people was exploited for centuries. For a great number of years, the social component of creative activity (its level depends on the degree of social development of society) was formed not at a revolutionary pace, therefore, only some of the most gifted people advanced science, technology, art, etc. Such individuals, due to their high natural creative potential, were able to create such objects and means of labour and changed social relations established over the centuries. This led to the organization of serial production and then of mass production of goods. Objective preconditions for social activation of corporate creative activity arose and initiated the industrial, scientific and technical, socio-technical, and economic revolutions. It significantly improved the quality of life of the population.

Index of employee's health can be defined as the ratio of an actual number of working days to the maximum possible working days per year.

Index of socio-psychological state of an employee is determined on the basis of appropriate tests, taking into account the level of emotional intelligence. If the positive direction is defined – the indicator is equal to 1, if the direction is neutral – 0.5, and if the direction is negative – 0.

The professional experience of an employee is determined on the basis of his compliance with the competencies, which define professional skills in consideration of basic education and work experience in the relevant field. To our opinion, the critical period from "absorption" of professional knowledge to it "useful effect" is the term over five years, which determines the value of the indicator from the minimum 0 to the maximum 1.

The level of intelligence of an employee is assessed on the basis of determining the level of IQ. Taking into account the thoughts regarding the correlation of creativity and intelligence, the level of this indicator above 110 points can be considered as the sufficient factor for the development of creativity. At this level of IQ, the value of this index will be the maximum, that is, equal to 1.

It should be pointed out that the level of IQ is determined in view of the following disadvantages in the testing of employees:

- a person who constantly works with psychological tests has a more advantageous position than a novice;

- time limits;
- the employee's attitude to the procedure;
- the test results are determined by the author of the tests only, who is not always objective;
- only mentioned test decisions are taken into account.

In addition, as Ch. E. Spearman points out, marks for knowledge tests are often unable to predict performance because they cannot measure how knowledge and skills will be used at work. Firstly, many tests of knowledge measure mechanical memorization, while the ability to find information is really important. Remembering specific facts is less important than knowing where to find them when it is necessary. Secondly, knowledge tests measure the ability of a person to choose the right answer from several options, rather than the ability to act on the basis of his knowledge. Finally, knowledge best predict what a person can do and not what he will do (Spearman, p. 10).

Index of compliance the workplace with the standards is calculated as the ratio of actual instruments, sources, and methods for obtaining and transmitting information used for creativity to the required ones.

Management of working process is the prerogative of the administration of an enterprise that must ensure the formation of rational behaviour of employees to achieve their business goals. The purpose of this administration is to create the maximum interest of the staff in the working process. In this case, the goal will be achieved only with the maximum coincidence of mentioned above vectors and the deviation of these vectors should be minimal.

In accordance with the specifics of an enterprise's activity and the influence of the relevant factors, the list and the number of indexes included in the calculation of the relative index of creativity of an employee may vary.

Depending on the values of economic indicators of creativity, it is expedient to rank them from the maximum value to the minimum. The material incentives should be made for employees of an enterprise according to the rank. If an enterprise uses a grading system of remuneration, the inclusion of this indicator is mandatory.

The growth of the social component of creative activity is expressed due to the increase of educational vectors of personality's development. That is why the main aspect of state policy, firms, and corporations,

including the development of high-tech industries, will be the task of developing programs in order to raise the level of education of employees. Experience, skills, professional development, social stability, a healthy lifestyle can increase the level of "creative impact" of employees.

Increasing the creative activity of employees will raise the efficiency of the system of an enterprise's creative management as a whole (Table 1).

The system of using creative activity, as well as socio-economic systems, develops according to the law of the "spiral." At each turn of the spiral development of society, the growth of the creative index is carried out. At the same time, the environment directly affects the creative activity of an employee.

4. Conclusions

The proclamation of entrepreneurship as the main driving force of economic development does not take into account the fact that it cannot be limited only to the initiative and level of creativity of entrepreneurs themselves. Only the corporate creative component of all the subjects of market relations (both managers and executors of business projects) is able to solve the task of economic recovery. As long as the social state of society does not pass to an equilibrium state, the creative activity of those subjects, which must spend it on solving economic problems, will be spent on solving social issues. Another important problem of the current state of development of the creative activity of employees is the decline in the level of common cultural and moral values. This is especially important for the mentality of our society. These categories were among the most important in the development of the country's economic potential. For the recovery of the national economy, it is necessary not only to declare the importance of business development but also to develop and maintain the social significance of every citizen. A potential employee will improve the state of the economy of the country by all means. In this way, certain conditions will be created for the growth of the potential of creative activity not only in the field of advanced technologies but also in the field of production of consumer goods. It will result in balancing the competitiveness of domestic products with European counterparts.

Table 1

Criteria of an efficient system of enterprise's creative management

Criterion	Method of calculation
Index of realization of creative ideas	The ratio of the number of realized creative ideas to the total number of promoted creative ideas
Index of the intensity of the process of making creative decisions	The ratio of the number of creative decisions to the duration of the period during which creative decisions were developed
Index of the rationality of creative decisions	The ratio of the number of creative decisions from which the expected effect was obtained to the total number of creative decisions
Index of economic efficiency of creative decisions	The ratio of the effect of implementing creative decisions to the total costs of their implementation

Thus, in current conditions of the informative “boom” the need for a national economy in creative employees increases. Such employees can apply accumulated previous knowledge, as well as create new products, services, technologies, which differ from similar by novelty approach and creative solutions. Increasing the creativity of employees, as a process of finding and applying

innovative solutions, becomes one of the main sources of creating added value and competitive advantages of a modern enterprise. The key to increasing the creative activity of employees is its effective motivation, which is based on the assessment of creativity in the overall results of an enterprise. Types of such motivation and its general mechanism are the subject of further research.

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MODELLING OF ENTERPRISE'S ACCOUNTING POLICY: THEORETICAL ASPECT

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Abstract. The purpose of this article is to study the possibility of modelling accounting policies and accounting processes. Since accounting processes don't have defined parameters, to study them we can model their functional features and forecast the behaviour of the object in question in various situations. It is achieved by means of developing certain sign patterns: charts, schemes, unified forms and rules for filling them out. Such modelling is called sign modelling. The most important type of sign modelling is logical-mathematic. In logical mathematic modelling, sign formations and their elements are considered in connection with certain transformations and operations with them. A logical mathematic model (LMM) is a basis (mathematic and linguistic provision) for creating algorithms for accounting processes and software development. Since the accounting objects are rather diversified, the principles of processing corresponding information can also differ. For instance, the most efficient accounting methods and approaches for large enterprises and turn out to be irrational for small enterprises and even result in additional losses and unnecessary increase in the amount of differently detailed information. *Methods of the research:* the statistical method of the questionnaire and generalization for studying the preconditions of accounting policy development at enterprises; the method of expert evaluation of strong and weak points of the analysed enterprises to define options and threats for their economic activity. *Practical results.* The content of the conceptual apparatus "accounting policies" is considered. The expediency of application of mathematical modelling information of accounting policy of the enterprise for the choice of effective methods of conducting financial accounting is substantiated. Elements of stages of the process of modelling accounting processes and accounting policy are studied and improved. When creating an accounting model, it is important to take into account which of the factors should be entered into the model. On the one hand, while using a model for forecasting, it is necessary to take into account as many factors as possible. On the other hand, gathering and processing large amounts of information are time-consuming, therefore, it is better to reduce the number of factors restricting by the most powerful ones. *Value/originality.* The choice of accounting policy should be based on modelling, the central link of which is a system of accounting and analytical support.

Key words: economic-mathematical modelling, logic-mathematical model, accounting processes, accounting policy, forecasting.

JEL Classification: E27, E37, O21, D4, C39

1. Introduction

The current stage of Ukraine's economic development is characterized by a change and realignment of business processes corresponding to the rapid market transformations. From the position of market relations, the system of management at the enterprise sets new

requirements to accounting as an information basis for making decisions.

Modelling is a general scientific method of research, which plays an important role in the development of specific branches of scientific knowledge. Accounting, as a science and practice, doesn't stand aloof general

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development trends and actively uses the possibilities of the modelling method in shaping its theory and adapting it to changing conditions of accounting. Thus, the application of mathematical modelling methods in accounting, in market conditions, becomes a prerequisite for its development in scientific and practical dimensions.

Problems of simulation of accounting are considered in the works by E. K. Hilde, who developed the problem of modelling normative accounting in industrial enterprises. Ya. V. Sokolov researched both theoretical principles of modelling in accounting and problems of automation of the information environment using the model method. P. Arkov, A. S. Borodkin, L. A. Gorshkova, V. Ivashkevich, A. L. Luzin, I. S. Matskevichius, A. Narinsky, R. S. Rashitov, N. Ubliev, A. A. Shaposhnikov made an important contribution to the theory of accounting modelling.

2. Modelling as a method of scientific knowledge

The economic mathematic model is a description of an economic process or a phenomenon through mathematic expressions (equations, functions, inequalities, identities) that simulate the behaviour of a modelled object in given or possible conditions of its performance.

Any economic-mathematical model should be adequate to reality, reflect the essential aspects and connections of the object under study, have a simple form and structure. Modelling is the only systematized way of seeing the options for the future and determining the potential effects of alternative solutions that enable their relevant comparison. Yet, economic-mathematic modelling remains an auxiliary tool in the system of production and management. The results obtained with the help of models are mainly used as consulting means. It is the manager's function to make final decisions. This is because of the complexity and insufficient knowledge of the economy complex and the drawbacks of modelling, the most typical of which are:

- entering into the model indices and standards insufficient for problem-solving;
- withdrawal from the model relevant to the given object features and variables;
- inaccurate evaluation of the parameters of the modelled object;
- drawbacks in the model structure, i.e. incorrect or inaccurate definition of functional dependence of the accepted criteria on the managed and linked variables;
- excessive model simplicity that does not fully embrace the main parameters and variable objects in their dynamics;
- excessive model complexity that hinders or complicates the analysis of the variables and is mostly time- and resource-consuming.

Decision-making employing economic mathematic models is based on the methods of simulation modelling, linear programming, probability modelling, operation study etc.

The number of definite models is almost equal to the number of problems for which solving they were developed. Let us consider the most common of them.

The model of stock management is used to determine the time for allocating orders for the resources and their number, as well as the mass of ready-made products in warehouses. Any enterprise should keep some goods or materials in stock to avoid production and sales delays.

The goal of this model is to minimize the negative impact of stock accumulation expressed in certain losses. These losses come of three types: for orders allocation, storage or losses connected with a shortage of stock/purveyance. In this case, it is impossible to sell ready-made products or deliver services. The standstill of the production lines also causes losses linked with the labour payment, despite the fact that the workers are not working at this time.

The maintenance of a high level of stock prevents the losses caused by their shortage. Purveyance of materials in larger quantities necessary to accumulate stocks in many cases minimizes losses for orders allocation since the enterprise can get corresponding discounts and reduce the amount of "paperwork." However, additional expenditures for storage, reloading, interest payment, insurance, goods decay, theft exceed these potential revenues.

Models of stock management are applied to define an optimal way of scarce resources allocation at available competitive needs. Linear programming is normally used to solve production problems.

Typical applications of linear programming in production management are:

- major production planning (compiling production charts minimizing general costs taking into account the costs related to change in the interest rate, given restrictions on labour resources and the stock levels);
- ware assortment planning (defining an optimal products assortment, in which each its type is characterized by its costs and resource requirements);
- item production routing (defining an optimal technological production route to pass through several processing centres, each of them having its peculiar costs and productivity);
- managing the technological process (minimizing steel filings, leather or fabric scraps per roll or cloth);
- stock management (defining an optimal correlation of the items in the warehouse);
- calendar planning of production (calendar planning to minimize the expenditures for storing stock, overtime payment and odd orders);
- planning products allocation (scheduling optimal uploading schedule taking into account goods distribution among the production enterprises and warehouses, as well as retail stores);

- determining the optimal location of the new plant (defining the best location by estimating transport costs between the alternative locations of a new plant and the raw ware supplies and sale points of ready products);
- calendar transport planning (minimizing the costs of truck supply during loading and cargo vessels to the piers);
- labour force distribution (minimizing costs for distributing workers for lathes and working places);
- shipping materials (minimizing expenditures for shipping raw ware, for instance, fork-lift trucks, trucks from the warehouse to the production departments).

3. Stages of mathematical modelling in economics

The modelling process involves three structural elements:

- an object of the research;
- a subject (researcher);
- a model that mediates the relations between the subject and object.

The modelling process can be presented in 6 stages (Figure 1).

1. The analysis of theoretical regularities typical of the phenomenon or process in the study, and empirical data on its structure and features. Such analysis serves for building models.

2. Defining the methods to solve the tasks.

3. Analysing obtained results and refinement (if necessary) of the form and structure of the model; returning to the first stage.

The most important point of the first stage of the modelling is the clear definition of the ultimate goal of model designing, as well as the definition of a criterion to compare different solution options.

Not every economic problem requires an original model. Some processes from the mathematical point of view are homogeneous and can be described by similar models. For instance, in linear programming, the theory of public service and others there are typical models to apply for solving a number of problems.

The second stage in the modelling economic processes is the choice of the most rational mathematical method for solving problems. For example, for solving linear programming problems, many methods are applied: simplex method, the method of potentials and others. The best model is not the most complicated one and most similar to the real phenomenon but the one that enables to find a rational solution and obtain the most accurate economic evaluations. Excessive details complicate model building and its extension results in losing important economic information and inadequate reflection of the real state of things.

The third stage of modelling is a comprehensive analysis of the results obtained in the study of an economic phenomenon. The final criterion of the probability and the quality of the model is practice, the conformity of the obtained results and conclusions to the real conditions, as well as the economic significance of the obtained evaluations. If the results do not conform to the real conditions, it is necessary to analyse the causes of this discrepancy such as unreliable information, the model's inconformity to the economic conditions etc. On the basis of this analysis, the economic mathematic model is corrected and the task is solved anew.

At the first stage, it is necessary to formulate the nature of the problem, to define the preconditions and state the assumptions. It is necessary to distinguish the most important features of the object of modelling, study its structure and the links between its elements, pre-formulate hypotheses that explain the object's

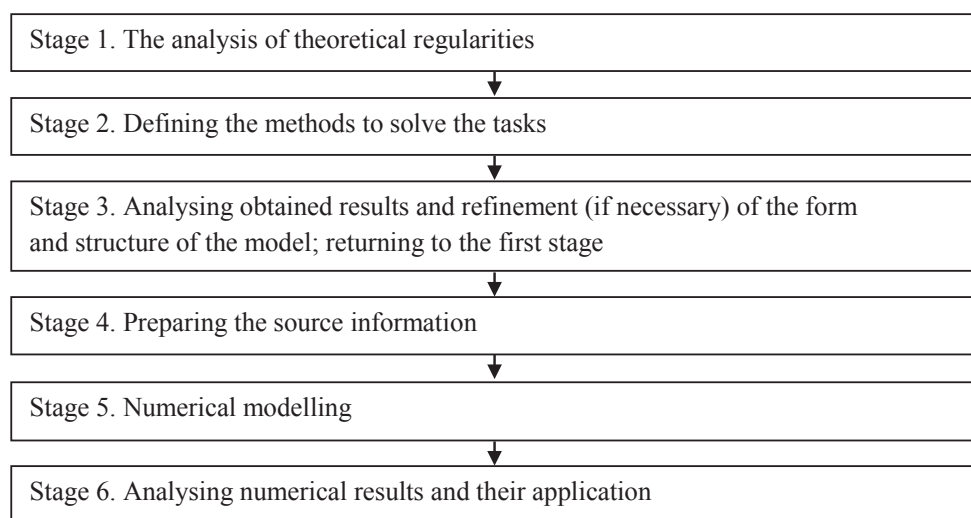


Figure 1. Stages of mathematical modelling in economics

Source: own research

behaviour and development (in the dynamics), clarify its connections with the environment etc.

During this process, complex objects are divided into parts of separate study: to study the links and their logical correlations, their qualitative and quantitative features. All these actions refer to the stage of the system analysis of the problem to consider the object as a whole system.

At the second stage, the economic model is formalized, i.e. expressed in clear mathematical correlations (functions, equations, inequalities, etc.). The process of model constructing has several stages. First, the type of economic-mathematical model is determined, the possibilities of its application in the particular case are studied, the list of variables and parameters is specified, as well as their correlation. Complex models may require several multi-dimensional models.

At the third stage, purely mathematical methods help investigate the general properties of models and solutions. However, previously conducted system analysis may have led to such a set of elements, properties, and correlations that are not solvable by the existing methods. In this case, we should return to the stage of system analysis. The next stage is to substantiate the solutions to the formulated problem. In the process of the analytic analysis, we define the number of solutions (singular or multiple), define the variable parameters that can relate to the solution, as well as the tendencies and limits of their variations.

However, the models of complex economic objects are hardly ever possible to study analytically. In this case, it is better to refer to quantitative methods. As a rule, the problems occurring in the economic practice are fitted to the common models with developed methods and algorithms of solving.

4. Preparing the source information. In economic problems, it is the most labour-consuming process of modelling since passive data accumulation is not enough. The quality of information plays a more important role in mathematical modelling. In the process of preparing information, methods of the theory of probability, mathematical statistics, as well as economic statistics are used for aggregation, data grouping, estimating the data reliability, etc.

In the process of system economic-mathematical modelling, the results of the functioning of some models serve as the source information for others.

5. Numerical modelling. This stage incorporates the development of algorithms of numerical problem solution, preparation of software and calculations. Besides, the large size of economic problems brings about some difficulties in their solution. For large complex objects suffice it to make up a database and find the means to deal with it, as well as methods of data aggregation necessary for calculations. In the case with standard problems, suffice it to choose a suitable program package and database management

system (DBMS). Numerical modelling substantially contributes to the results of analytical research.

6. Analysing numerical results and their application. At this stage, above all is the correctness and completeness of the modelling results and the possibilities of their practical use, as well as possible ways of its further improvement.

Therefore, primarily, it is necessary to check the model correctness according to the most relevant features chosen. So, the model should be verified and validated since the modelling refers to solving practical problems (analysing economic objects, economic forecasting, making managerial decisions) (Shyghun, 2010).

4. Peculiarities of modelling accounting objects

Accounting processes having no physical parameters, their study can restrict to modelling functional characteristics, and also predicting the behaviour of the studied object in different settings. It is achieved by developing sign formations of a certain type: charts, schemes, unified forms and rules to fill them out. Such modelling is called sign modelling (Laux, Stocken, 2018).

The most important type of sign modelling is logical-mathematical. Sign formations and their elements in logical-mathematic modelling are considered in relation to certain transformations and operations with them. An ideal logical-mathematical model is a basis (mathematical and linguistic support) for creating algorithms of accounting processes and developing software.

Hence, modelling in accounting is symbolic, logical, and mathematical and aims at creating schemes for processing, generalization, and grouping of accounting information. All mentioned above enables to state that the model for current accounting of economic processes should at least comprise the relevant elements:

- unified forms of generalization and reporting accounting information;
- unified methods of data grouping, their details, distribution for calculation and evaluation, and also the subsequent grouping according to other features to make up financial statements for submission to users;
- rational methods and sequence of processing of accounting documentation.

Since the objects of accounting are quite diverse, the principles of related information processing can vary significantly. For example, the most effective accounting methods and techniques for large organizations may appear to be inefficient for small enterprises and lead to additional expenditures and unnecessary increase in volumes of detailed accounting information (Ivakhnenkov, 2011).

Therefore, several equal in rights models of the current accounting of economic processes can operate simultaneously, and the economic agents must be able

Table 1

The analysis of the use of various mathematic models in developing the enterprise's accounting policy

Model types	Authors	Goal	Use in developing accounting policy
Lineal programming	Evdokimov V. V., Lagovska O. A., Samigulin A. A., Yakubenko G. A.	Forming optimal production programs	Possible at the statement for calculating the prime cost of products
Stock management models	Selivanova Y. V., Sidyuk O. V., Sukov G. S., Ivakhnenkov S. V., Maliuga N. M.	Costs optimization for purveyance, consumption, and keeping stock	Possible at defining the reserves to provide the subsequent expenditures and payments
The model of optimal service	Money S. M., Filonenko N. O., Gerasimenko T. O.	Determining the optimal quantity of service channels	Possible at developing accounting apparatus
Correlation-regression models	Rashitov R. S., Vaschenko L. O., Luzin A. L., Smachilo T. V.	Distinguishing between the production factors	Possible at defining the elements of accounting policy
Operational calendar planning models	Boyko S. V., Bardul O. M., Popova N. I., Chizh V. I.	Making up optimal plans for performing and completing work	Possible at developing documents circulation
Game theory	Proskura K. P.	The choice of an optimal strategy	Possible at the choice of accounting method

Source: own research

to choose among them according to the specifics of the production, volumes of the processed information and engaged users.

The effectiveness of the organization's accounting services, as well as the completeness and timeliness of providing the necessary information to all interested users, depends on how well the accounting model is chosen. The results of the analysis into the use of various mathematic models while developing accounting policies for the enterprise are shown in Table 1.

The abovementioned elements of the models for accounting processes in theory and practice of accounting are realized in the form of:

- accounting rolls – special accounting forms to enter and group accounting data on the available inventory and its state, as well as operations with it; accounting rolls can be unified (obligatory within the state, branch or production type) or be developed within the enterprise that keeps accounts;
- accounting forms (forms of calculations), that is, a combination of accounting rolls and ways of keeping records of economic operations;
- accounting procedures – the order and sequence of actions while filling up certain accounting rolls.

5. Conclusions

As a conclusion, it should be noted that accounting information systems are critical to the production

of quality accounting information on a timely basis and the communication of that information to the decision-makers. Existing literature offers evidence of the relationship between these accounting information systems and organizational effectiveness; though it is important to highlight that an in-depth study is required to examine other factors that may influence this relationship. The information value generated by accounting information systems to shareholders and stakeholders in making investment decisions is invaluable. Financial managers need the financial and accounting data provided by accounting information systems to evaluate the firm's past performance and to map future plans.

Secondly, to choose the accounting policies of an enterprise, it is advisable to model future performance outcomes proceeding from past events and allowed alternative accounting methods. The choice of accounting policy should be based on modelling with the system of accounting and analytical support in the centre.

Finally, modelling the process of choosing an accounting policy incorporates accounting data, statistical data, and marketing information. This proves the indissoluble connection between accounting and managerial decision-making. Hereby, the studied information is the subject of transformation through its analytical processing. Modelling the choice of accounting policy implies the resources and methods of their use.

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LEGAL COMPONENT OF THE CONCEPT OF PROVISION OF PUBLIC SERVICES

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Abstract. The paper defines the main theoretical aspects of the concept of public services in Ukraine. It is substantiated the expediency of the development of a unified concept of public services as a basic document for the modern domestic rule-making process aimed at developing modern legislation on public services, which is perfect in content and effective in application, and also for the elaboration of its scientific basis – the provisions of modern national administrative-legal science. It is developed a version of the Concept of public services, its content is covered. The proposed version contains three sections: Section I “General provisions” defines the main conceptual framework, raises problems, establishes purpose, tasks, terms of implementation of the Concept of public services; Section II “Ways and methods of problems solving, terms of implementation of the Concept of public services in Ukraine” specifies particular measures that must be taken to achieve the goal and solve the problems. These measures are conditionally divided into three groups: educational measures (the process of preparation of the standards for legal education), scientific measures (research), law-making measures (statutory acts regulating the activities of actors, procedures, guarantees). Section III “Expected results of the implementation of the Concept of public services in Ukraine” proposes the main results predicted to be achieved by virtue of three abovementioned directions (groups of measures) for the implementation of the Concept’s provisions.

Key words: responsibility, electronic public service, control, public services, provision of public services, public services system, appeals against decisions, acts or inactivity of public authorities for provision of public services.

JEL Classification: E44, H10, K10, K13

1. Introduction

The problem statement is to build a democratic Ukraine of European standard and it should not be based solely on discussing the problems but it requires radical changes in the legal field, where a person, his/her rights and freedoms must become a priority.

Adoption of the Concept of public services in Ukraine should contribute to the formation, improvement and further development of the system of provision of public services on the basis of clearly defined legal principles. It will enable to meet the needs of citizens-consumers of public services and will ensure the protection of their rights and interests, which are guaranteed by the Constitution of Ukraine and other regulatory acts.

The current state of the provision of public services in Ukraine is characterized by a large number of shortcomings and problems despite the fact that the state must guarantee the right of every consumer to an impartial and fair decision concerning a case solution within a reasonable time.

Now, issues of public services in Ukraine require thorough research. So, feedback is important – thoughts,

reactions, assessments of citizens about the essence of reforms and, in particular, their effectiveness.

Analysis of the latest researches and papers on a research topic. The issues of legal regulation of services as a legal category are the focus of scholars, and their various aspects were studied in scientific papers of such scholars as V. B. Averianov, K. K. Afanasiev, V. T. Bilous, I. P. Holosnichenko, N. L. Huberska, S. L. Dembitska, S. V. Kivalov, I. V. Kovbas, I. B. Koliushko, T. O. Kolomoiets (Kolomoiets, Pyrizhkova, Armash etc., 2009; Kolomoiets, 2002), V. K. Kolpakov, A. T. Komziuk, S. F. Konstantinov, R. S. Melnyk, S. H. Stetsenko, V. P. Tymoshchuk (Tymoshchuk, 2003), and others.

It also should be noted that for the first time, only thesis research of O. M. Bukhanevych is defended at the level of doctoral dissertation “Theoretical and legal and praxeological principles of provision of administrative services in Ukraine” (Bukhanevych, 2016), in which the theoretical foundations and practice of legal regulation of administrative services provision in Ukraine are comprehensively disclosed.

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The purpose of the paper is to propose the concept of the provision of public services in Ukraine on the basis of a comprehensive analysis of available scientific and regulatory sources.

2. Results of sociological research (residents of Dnipropetrovsk, Zaporizhzhia, Kyiv, Lviv, Odesa, and Kharkiv region)

Presentation of the main material. The study of citizens' opinion concerning this issue was carried out by the method of questionnaire survey by applying a non-random method of respondents' selection (residents of Dnipropetrovsk, Zaporizhzhia, Kyiv, Lviv, Odesa, and Kharkiv region) – a sample of the population of 18 years old is available. In total, 450 respondents were interviewed.

The list of the main shortcomings in the system of provision of public services was sufficiently detailed. In the opinion of the respondents, the main problem is in obliging citizens to collect certificates and other documents – more than half of respondents expressed this opinion – 44.7%. The list of problems also involves (in descending degree) the attitude to citizens as to requesters, disrespect for them – 34.2%; burdensome bureaucratic procedure for obtaining public services – 32.9%; demand of certificates and other documents from citizens, submission of which is not required by the legislation – 31.3%; unreasonably long or even indefinite term of provision of certain services – 27.7%; unreasonable requirement for citizens to receive related paid services – 25.8%; unjustified partition (cutting) of one service for several paid services and improper professional training of officers providing services, especially it touches psychological aspects of communication with citizens – 23.1%. These are the eight main complaints of citizens against the system of public services. Attention is also paid to the imperfection of the current legislation, which not only complicates control over the system but also improperly regulates the procedure for the provision of services. Citizens negatively responded about the necessity to appeal to several bodies for resolving issues. It should be noted that there were also such respondents who pointed to the territorial “dispersion” of different authorities and their units, and it creates additional difficulties in finding the necessary structure and promotes the unjustified introduction of new types of services.

Regarding the types of feedback that must be used by the authorities in order to improve the quality of public services, the largest number of responses was in favour of the book of complaints and proposals, which should be placed in an accessible place for visitors – 44.7% of respondents (as it was in Soviet times), or the use of hotline – 44% of respondents consider this type of communication as one of the most successful and effective, while 25.8% think that, if it is necessary,

citizens can appeal to the public reception office as a body that will provide feedback. The role of modern information channels in establishing feedback, as well as the role of the mass media, is small (it was noted by almost 22%), but it still needs attention.

The aspect as a reduction of the number of documents required for the reception of a service occupies a significant place among the measures for improving the quality of public services – 80.4% of respondents emphasize the need to solve this problem as the system of providing services in our country, especially in respect of the execution of any document, is characterized by excessive bureaucratization. In this context, the process of using electronic document circulation and its establishing into the work of the authorities under the principle of “one-stop shop” plays an important role – almost half of the respondents (44%) pay attention to the necessity of introducing such forms of work. Emphasis is also placed on the introduction of new modern forms of work through the Internet – 32.9%; an increase of responsibility of civil servants for poor-quality of service provision – 28.7%; improvement of the technical quality during providing services – 27.7%.

Among 63.9% of respondents who needed certain services, 17.3% were dealing with registration, 14.9% were receiving permits, and 10.9% were receiving licenses and other services. Also, 49.6% of respondents answered the open question regarding names of institutions, which were being visited by citizens during the year. The units subordinated to the Ministry of Justice of Ukraine (state registrars, notaries) are leaders in terms of appeals – 2.8% indicated this structure; the same number of visitors was recorded in the housing and municipal bodies. City councils and district executive committees are second in terms of visitors – 2.1%, land resources management services are third – 1.8%. Those respondents who have applied for public services but have not indicated the name of a structure may not remember it or, which is most likely, do not want or are afraid to indicate it. It should be noted that some of the interviewees pointed agencies that are not related to the procedure of providing public services, such as city hospitals, public educational institutions, etc. Thus, there is a problem as the lack of the necessary amount of information about the structures, which provide public services, and which provide services. It can be assumed that those respondents who answered that they absolutely know nothing about providing the population with public services for by executive authorities and local self-government bodies gave such answers to the questions. We even indicate that at the front of a questionnaire, there was information note, which stated that public services did not include control activities (controlling, auditing, inspections, etc.), economic, educational, and medical services.

The frequency of appeals of citizens to the authorities varies from 2 to 4 times – 34.9%, that is, a one-time visit

to the government does not mean that an issue will be solved, and most likely, problems may be settled only through a long-term visiting of agencies. Herewith, 18.7% were able to resolve their issues by visiting the necessary agency at once. Also, 4.3% indicated that they appealed to the necessary bodies 5-10 times, but these were the respondents who pointed to several authorities.

Those 63.9% of respondents, who were appealing to the authorities during the year, assessed some of the components of the work of executive bodies' representatives. Thus, the respondents showed the highest level of satisfaction with the availability of paper documents and forms – 16.4%; the competence of employees – 14.2% and the schedule of the authority – 10.9%. Respondents who are partially satisfied with the competence of employees – 28.7%; general condition of the premises – 24%; informative content of boards at the entrance to the premises and the presence of other indicators – 21.3%; affability and kindness of the workers – 20.9%. Moreover, 21.8% of respondents are dissatisfied with the conditions for access and movement of handicapped persons, the arrangement of places for waiting and filling of documents – 21.8%, informative content of boards at the entrance to the premises and availability of other indicators – 21.6%, convenience of services payment – 17.6%. If we use the data that represents the sum of the indicators of the scale "satisfied", "partially satisfied", "partially dissatisfied", and "dissatisfied", the leaders of high appraisal are such indicators as competence of workers – 42.9%, the availability of paper documents and forms – 36.2%, informative content of boards at the entrance to the premises – 27.7%; the leaders of the negative assessment are the conditions for access and movement of handicapped persons – 46.2%, convenience of services payment – 29.8%; the speed of service delivery – 22.9%; arrangement of places for waiting and filling of documents – 22.2%.

Respondents were not satisfied with the quality of providing public service – 51.5% were partially satisfied for various reasons: additional payments were made (18.2%), additional documents were required (17.3%), the term of services provision was violated (16%). Rather more than a tenth of the respondents (11.8%) indicated that they were quite satisfied, as they received a qualitative service on time.

Among the difficulties, which were faced by citizens when applying for a public service, the following is dominated: long queues to the authorities – 36.2%; time expenditures – 32.7%; non-awareness about the required list of documents – 22.7%; the presence of a large number of agencies that must be visited to receive a service – 20.9%; inconvenient premises in which citizens wait for a personal reception – 22.0%; inquiry telephone wasn't answering a call for a long time during the working day or the connection was missing and the uncomfortable reception schedules of citizens gave

the same number – 20.7%. These are the seven main comments of respondents, which need to be resolved by the authorities at both the state and local levels.

Among 61.6% of public services receivers, 12.2% of the respondents did not need additional resources and additional actions in solving a problem. Among those who were forced to take other opportunities for a positive solution for their case, 27.1% incurred unjustified additional financial expenses, 23.1% engaged influential connections, 22.7% of respondents claimed that they solved the issue with the help of a bribe, 20.4% used additional information.

When asked about possible solutions to problems which were faced by citizens during receiving public services, 23.1% answered that they were using influential connections, 18.9% complained to higher authorities, and 34% solved problems with the help of bribe (where 22.4% – in cash equivalent or in the form of gifts, and 11.6% – in the form of certain services). Those 18.9% of citizens who complained to the highest authorities show that not always complaints help to solve problems. Thus, 9.3% of the respondents indicated that their complaint was rather satisfied, 2.1% rather were not satisfied with the complaint, and 4.9% of the citizens were not satisfied with the complaint at all. Only 2.6% of the respondents were satisfied.

Consequently, all above-mentioned allows us to make the main conclusion. The quality of public services is a set of characteristics of a public service that determines its ability to meet established or expected customer's needs. Unfortunately, the Ukrainian system of public services has significant disadvantages. First, the population does not have the necessary, reliable and, in general, complete information about this process (procedure). Second, citizens do not use all possibilities to receive services in case of such need (for example, all possibilities of the Internet – from a search of the necessary information on the website to online consulting and answers receipt to e-mail). Communication is carried out according to old methods, through personal contacts at the reception, less often – through telephone counselling, via the Internet. Hence, a large number of citizens' complaints, time expenditure, rudeness, and disrespect. The problem of burdensome bureaucratic order of reception of public services, extortion of certificates and other documents from citizens play not the last role. In this area, such type of activity as document circulation will significantly improve the quality of provision of public services. It will, first of all, save time on receiving a service, allow avoiding excessive bureaucracy, and solve the problem of material costs both on the part of the ordinary citizen and the state. Meanwhile, those respondents, who were receiving public services during the year, remain dissatisfied with the quality of this process and try to solve their issues not only by lawful methods but also with the use of additional options – from ties to bribes.

So, highlighted the results of the sociological research on the provision of public services, we will outline the main theoretical provisions of the concept of public services in Ukraine.

Operation of this Concept covers public relations related to the provision of public services in Ukraine.

The terms that are used in this Concept have such definition as follows: a public service is an activity of the public administration bodies, which is regulated by public-law rules relatively satisfaction of the public interest in considering the application of a natural or legal person for the issuance of an administrative act (decision, permission, license, certificate, act, authorization document, registration, etc.), aimed at ensuring his/her rights and legal interests and/or performing statutory obligations by a person through financing with the use of public funds;

the system of public services is a set of elements and the connection between them, which is regulated by public-law norms in the activities of public administration bodies in relation to the satisfaction of the public interest in considering the application of a natural or legal person for the issuance of an administrative act (decision, permit, license, certificate, act, certificate, registration, etc.), aimed at ensuring his/her rights and legitimate interests and/or performing statutory obligations by a person through financing with the use of public funds;

a procedure for the provision of public services is the procedure of the activities of public administration, which is regulated by administrative and legal norms, in considering the application of a natural or legal person regarding the implementation of a decision of the authorized body aimed at ensuring its rights and legitimate interests and/or the fulfilment of person's duties specified by the law;

unified state portal of public services is a nationwide automated information system that enables the subjects of the application to receive public services virtually (in electronic form);

electronic public service is a governmental activity of an entity of public administration that is authorized to provide public services, which is implemented through information and communication technologies using an electronic digital signature without direct interaction with the subject of appeal (individual or legal entity) aimed at the acquisition, change or termination of the rights, duties and/or the satisfaction of the legitimate interests of natural or legal persons in accordance with the law, which leads to a certain result that manifests itself in the form of issuance of an administrative act (permission, license, certificate, registration, etc.);

the control of the provision of public services is a form of guarantee of ensuring the legality of public services in Ukraine, which is regulated by the legislation implementing in the activities of subjects of administrative law, including citizens or

their associations in relation to the control over the realization of the provisions of regulatory acts, powers and observance of rights, freedoms, and legitimate interests of the subjects of application (natural or legal person) by the subjects of public administration;

appeal against decisions, actions or inaction of the public administration bodies of public services provision is a form of guarantee of assurance of the legality of public services in Ukraine, which is implemented through a normatively regulated procedure for the execution of procedural actions that ensure legal and objective consideration of cases in administrative and/or judicial procedures on appeal against decisions, actions or inactivity of executive bodies and local self-government bodies, their officials and officers regarding the consideration of an application of a natural or legal person on issuance of an administrative act (decision, act or decree on reception of permission, license, registration certificate, identification document, certificate, etc.);

the responsibility of public servants for the provision of public services is a form of guarantee of security of the legality of public services in Ukraine, which is regulated by the legislation, implemented in the activities of the relevant subjects of public administration or court in relation to prosecution for not providing public services or failure to perform the relevant duties by employees/officials of public administration;

the subject of the application is an individual, a legal entity that applies for public services;

the subject of the provision of public service is an executive body, another state body, the authority of the Autonomous Republic of Crimea, a local self-government body, and its officials authorized to provide public services in accordance with regulatory acts;

centre for public services provision is an ongoing subdivision of a local state administration or a local self-government body, which provides public services by virtue of an administrator through the interaction with various entities of the public administration for the provision of public services;

quality of the provision of public services is a degree of compliance with the criteria that should be approved at the level of the legislative body in the form of standards for the provision of public services, and violation of which should lead to legal liability of employees of public administration body;

availability of public services is a guarantee of equal conditions for all subjects of appeals (physical or legal person) to receive public service in a specified manner; standards for the provision of public services by public administration bodies are general rules on order of procedure for the acceptance, registration, consideration of applications for public services, rendering of decisions during public administration, deadlines for proceedings, as well as the procedure for charging fees and grounds for liability of authorities, etc.

3. Ways and methods of problems solution, implementation terms of the Concept of the provision of public services in Ukraine. Problems, which are covered by the Concept of public services in Ukraine

An effective, well-organized institute of public services is a key factor in the development of civil society in democratically developed countries. For this reason, the EU way which was chosen by Ukraine requires pivotal changes and reform of the existing system for the provision of public services.

After the issue of Decree of the President of Ukraine "On Measures for the Implementation of Administrative Reform Concept in Ukraine" dated June 22, 1998, No. 810/98, the building of a service, democratic state is the main task, which involves meeting the needs of natural and legal entities, promoting and ensuring the realization of their rights, freedoms, and legitimate interests. One of the state "tools" in this activity is public services, which take one of the main positions in activities of public administration entities.

The basic doctrine of public services is the concept of the state's service to a man and citizen. Now public management of this sphere of social relations creates the necessity to elaborate an effective system for the provision of public services, which will guarantee law enforcement for needs' satisfaction of subjects of appeals (natural or legal person) for certain services with compliance of quality standards and principles of public services performance.

Despite some improvements in the provision of certain types of public services over recent years, it should be noted that the modern mechanism of public services' provision by public administration subjects has significant shortages that shows a clear need for its refinement, that is, the development of new approaches, their approbation in both lawmaking and law-enforcement activities of relevant subjects.

An available system of provision of public systems in Ukraine is characterized by the ambiguity as at legislative as sub-legislative levels, non-transparency, and lack of proper regulation, closed nature for consumers (natural or legal persons), so it needs immediate reforming. For this reason, it is necessary to adopt the Concept of public services provision in Ukraine.

To provide public services, it is essential to resolve problems as follows:

- the lack of legislative consolidation of the concept of public services, the system of public services, types of public services, the mechanism of providing public services;
- the lack of register of public services at the legislative level, which would indicate all types of public services;
- the lack of definition of the concept and types of administrative charge for public services at the legislative level;

- the problem of decentralization of the provision of public services;
- the uncertainty of mechanism for procedure regulation of the provision of public services;
- the problem of legal regulation of public relations in terms of providing public services in an appropriate electronic form;
- the lack of proper regulation of the issue of fee/free-of-charge basis for public services;
- the problem of legislative definition of the powers of the subjects providing public services, which manifests itself in duplication of functions of executive authorities and local self-government;
- the lack of proper regulation of guarantees types for law enforcement of public services in Ukraine in regulatory legal acts;
- insufficient legislative consolidation of the concept and types of control in the sphere of public services provision;
- the lack of resolution of the issue regarding the procedure for the formation, distribution, and use of budget funds by various entities of public administration on the provision of public services at the legislative level;
- the problem of elaborating the issues on criteria and standards for the provision of public services at the legislative level;
- the problem of creation of appropriate material, financial and organizational conditions for the provision of public services by subjects of public administration.

Purpose and tasks of the Concept of public services in Ukraine.

The purpose of the Concept is to organize purposeful activities of subjects of public administration in order to elaborate an effective system and mechanism for public services' provision in Ukraine.

The task of the Concept is to define doctrinal directions for the further development of the system of public services provision.

Ways and methods of problems' solution, implementation terms of the Concept of public services in Ukraine.

In order to achieve the goal and solve the tasks envisaged by this Concept, it is necessary to ensure the implementation of complex measures regarding:

- 1) adoption of the laws as follows: Administrative and Procedure Code of Ukraine, "On Public Services"; "On List of Public Services and Payment (Administrative Fee) for their Provision"; "On Electronic Trust Services"; "On Local Self-Government Bodies in Ukraine"; "On Public Control" etc.
- 2) creation of the list of public services provided by the subjects of public administration through developing clear criteria for their grouping (by subject, type, fee, etc.);
- 3) functional extension of local self-government bodies on the provision of public services with the purpose of decentralization process for the latter;

- 4) introduction of public services provision under the principle of "single window system", "single office" for entities of appeal (consumers) in order to visit only one body where the majority of public services would be provided and, consequently, the introduction of an effective mechanism for the protection of human and civil rights and freedoms in practice;
- 5) development and implementation of criteria for quality assessment of providing public services in the activities of public administration entities;
- 6) delineation of the powers of entities of public administration for the provision of public services to improve the quality of public services provision; elimination of duplication of functions, corresponding collisions in law enforcement activities, etc.;
- 7) provision of public administration entities with highly qualified specialists, who are called to implement state policy in public services in order to exercise the rights, freedoms, and legitimate interests of individuals and legal entities (consumers), taking into account modern approaches and models of human resources management;
- 8) establishment of centres for public services' provision by delegating the functions of public administration subjects for the purpose of providing the most popular public services (registration of real estate; drawing-up and issuance or exchange of Ukrainian passport for travelling abroad, etc.) only in these centres;
- 9) termination of the law-enforcement activities of intermediary subjects in providing public services;
- 10) examination of an issue and decision on a possibility to delegate certain functions of subjects of public administration on public services' provision to private economic entities;
- 11) creation of appropriate material, financial, and organizational conditions for the provision of public services by entities of public administration;
- 12) elaboration of an effective guarantees system for ensuring lawfulness of public services in Ukraine regarding the provision of public services (control over the provision of public services; appeals against decisions, actions or inactivity of public administration bodies on public services, the liability of public servants for the provision of public services);
- 13) development of specific measures for the introduction of electronic document flow, electronic signature, protection of communication channels for the provision of public services;
- 14) creation of a unified electronic database ("public services register") regarding the provision of public services by competent authorities.

To resolve the problems impeding the development of public services in electronic forms, it is necessary:

1. to integrate official websites of public administration bodies, allied services with information systems of public services entities providing a single authorization and use of a personal account for users of public services;

2. to approve a list of public services in electronic form, focusing on the services that are typically used by consumers (natural or legal persons), by virtue of statistical data and sociological research, which is a prerequisite for a successful service and democratic state;

3. to develop a Unified State Portal of Public Services at the legislative level as a single mechanism for providing public services in the electronic form and eliminate other websites, which render services;

4. to ensure the availability and openness of public services in electronic form, in particular: to provide public services using mobile means and services; to inform citizens about the benefits and procedure for the provision of public services in electronic form in public places; to perform a periodic TV and radio broadcasting of short information programmes towards the provision of public services in electronic form;

5. to develop and adopt regulatory legal acts which will improve the regulation mechanism of public services in electronic form.

Concept Execution Deadline: 2017-2020.

Expected results of the Concept of public services provision in Ukraine.

The Concept implementation will permit to achieve the following results in the future:

- 1) to create favourable conditions for the provision of public services to appeal entities;
- 2) to improve the level of legal consciousness of consumers during public services receiving;
- 3) to provide information openness and activity transparency of entities of public services administration;
- 4) to reduce the level of corruption risks in the process of providing public services;
- 5) to improve the quality of providing public services;
- 6) to reduce the financial and time expenses of entities of appeals when receiving public services;
- 7) to improve the level of consumers awareness (individuals or legal entities) of public services;
- 8) to ensure the effectiveness of guarantees implementation for ensuring the lawfulness of public services in the activities of public administration entities in providing public services;
- 9) to advance the efficiency of public administration as a result of procedures simplification, reduction of administrative expenditure, application of modern methods for public administration in public services provision etc.

4. Conclusions

It was elaborated the Concept of public services in Ukraine, which consists of three main sections (section I "General provisions", section II "Ways and methods of problems solution, implementation terms of the Concept of public services provision in Ukraine", section III "Expected results of the Concept of provision of

public services in Ukraine”); three main priorities of its implementation are identified – doctrinal, educational, and normative, the practical implementation of which will contribute to the formation of a new modern scientific basis for rulemaking and law enforcement regarding the maximum use of public services resource.

It was proposed the directions for improvement of the provision of public services:

- ✓ reconsideration and reduction of public services in a single register, which would contain the name of public service, the subject of public administration that provides a public service, the regulatory framework for the provision of a particular type of service, a list of documents for receiving a service, a form of payment, etc.;
- ✓ the provision of public services complex to individuals and legal entities in the so-called “single offices” for the purpose of constructing a service state, that is, providing quality services to particular consumers with the minimum percent of attendance of the subject of public administration;
- ✓ balanced division of powers of public administration entities in the provision of public services taking into account the principle of legality, the rule of law, etc., upon the condition of simultaneous adherence to quality criteria for the provision of public services;
- ✓ decentralization of the provision of public services, which envisages that the majority of the abovementioned services should be performed at the level of local self-government bodies and responsible “single centres”, “single offices”;

✓ the development, adoption, and implementation of the criteria for quality assessment of public services in the law-enforcement activity of public administration subjects;

✓ provision of public administration entities and established public service centres, such as centres for provision of administrative services, with highly skilled experts, whose aim is to implement public policy in providing public services in order to realize the rights, freedoms, and legitimate interests of entities of appeal taking into account modern approaches and models of public administration;

✓ examination and adoption of a decision on the possibility to delegate certain functions of public administration subjects on public services’ provision to certain private economic entities in order to ensure competitiveness and improve the quality of services;

✓ creation of a control mechanism in providing public services as one of the guarantees of ensuring legality in the process of protecting the rights and freedoms of man and citizen;

✓ draft and adoption of regulatory and legal acts on the mechanism for interaction and coordination of public administration subject in the process of providing public services.

The implementation of the above directions will promote the creation of an effective system of public services that will guarantee the protection of human and citizen rights and freedoms, which in turn will contribute to the formation of a service-oriented, democratic state.

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THEORETICAL ASPECTS OF THE TRANSFORMATION OF THE INSTITUTE OF CORRUPTION IN EASTERN EUROPE

Maryna Skoryk¹

Abstract. *The purpose* of the article is to substantiate the essence and structure of corruption as a separate institution in an institutional environment that has a deviant, anti-social orientation. To describe the influence of informal institutions on corruption in Ukraine. To propose constructive proposals for the use in domestic practice regarding the mechanism of overcoming corruption, which in the future will bring Ukraine to sustainable economic development. *Methodology.* The study we conducted is based on a systematic method that considers all elements of corruption in unity and development. The research used the following general scientific methods of scientific knowledge, namely: the method of analysis (means of combating corruption); synthesis (generalization of the main causes of corruption in Ukraine); method of induction (the impact of corruption on society); the method of hypotheses (when building a mechanism for overcoming corruption); and empirical method (own observations of the author on the situation in the state). *Results.* Corruption in Eastern Europe is a consequence of the spiritual, economic, and political crisis of society. Corruption demoralizes citizens and destroys their trust in the state. The mechanism of overcoming corruption is considered from the standpoint of neo-institutionalism. The author stresses that corruption is an informal institution. The system will start to change after the state's economic development, and the main condition is the promotion of culture, which makes it impossible for an institution to be corrupt. To act and start such propaganda should be the education of future generations. Investing in education will raise its level, give a new class of professionals who will go to work in private business and government. Worthy wages will make you think about the desire for easy profit. The author conducts a qualitative analysis of corruption through methodological tools of neo-institutionalism. It is proved that the fight against corruption at all levels exists as a complex hybrid of institutional mechanisms of regulation, the impact of which primarily affects informal institutions, and then formal ones. For example, the purpose of a bribe is to obtain a profitable contract. A bribe is an informal institution that is an agreement between an official and a citizen. But a contract signed with a bribe is a formal document (legal). As a result of such corruption actions, formal institutions are not violated but act as a means of implementing informal arrangements. *Practical implications.* Taking into account the historical, economic, and mental component of Eastern European countries, analysing the foreign experience of the countries, the formation of a national idea in the subconscious of the society, which will be aimed at building the state, should come to the fore. It is necessary to break down stereotypes, raise confidence in power and law. Such measures are possible only through the reform of education, the upbringing of young people in the personal negative attitudes to corruption. An active civil society that supports various strategies aimed at reducing corruption. Sanctions are important, so punishing corrupt officials is an important part of any effective anti-corruption effort. Therefore, the Criminal Code of the country should clearly indicate the responsibility for any manifestation of corruption. The mass media must conduct a serious information company: report on detention and investigation and display social advertising (not as a part of a political advertisement). *Value/originality.* The influence of informal institutes on corruption in the eastern part of Europe is substantiated and the mechanism of its overcoming is proposed, the use of which will ensure the gradual economic development of the state.

Key words: corruption, shadow economy, neo-institutionalism, deformation, formal institute, informal rules.

JEL Classification: A13, B52, H70, E60, E71, I28

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1. Introduction

The scale of corruption is striking. Corruption in the eastern part of Europe has already reached its peak, along with ordinary goods and services the population already sells everything that, in the sense of Europeans living in the Western part of Europe, cannot be sold at all. That is, in the countries of Eastern Europe, it is easy to buy a post, a diploma of higher education, a reward, honour, a human body, a state secret, etc.

In real life, corruption is manifested through various kinds of bribes such as: "extortion," "gifts," "hospitality," "kickback." And they are guilty of a situation that has developed, such as the one who takes, and the one who gives.

Corruption is truly a global problem, in his essay on the fight against corruption in Estonia, Mart Laar claims that corruption has been so rooted that it has become a way of life. He writes: "We did not even realize that this is not normal" (Mart Laar, 2016). Such a characteristic clearly corresponds to the situation in Ukraine. That is, corruption has already gone beyond understanding it as a part of a "shadow economy" and an economic phenomenon.

For example, according to the Corruption Perceptions Index in 2017, Ukraine has improved its situation in the provinces by 2012 in four positions and has 30 points out of 100 (Ofitsiyni sait Transparency International, 2018). That is, Ukraine is on the right track. However, corruption in Ukraine is already a universally accepted norm of the behaviour of a society that has its institutional structure, which is why it does not cause social protest.

D. North is a classic who first isolated informal institutes in the general system of institutions. His non-institutional theory demonstrates the overcoming of the limitations of the classical institutional approach, and the study of informal, "shadow" illegal institutions that significantly affect the stability of the entire institutional system (Kushnarov, 2017) is included in the institutional analysis. V. O. Mandybura explores the institutional essence and mechanism for overcoming corruption, E. V. Nevmerzhihsky regards corruption as a socio-political phenomenon. Instead, other scholars will discuss this topic in the context of general research on manifestations and the fight against corruption.

Thus, from the point of view of neo-institutionalism, scholars have conducted a non-complete study of corruption as an informal institution. This fact confirms the relevance of our research.

2. Methodological approaches to the study of corruption as an institution of anti-social conjecture

For a clear mechanism of corruption overcoming, it should be clearly defined, taking into account a wide range of factors of influence on its occurrence.

The studies we conducted confirmed the fact that today scientists have not yet formed the general definition of "corruption." In the process of research, scholars focus on the scale of corruption, on improving law enforcement, on improving penalties for committing corruption. However, they do not pay attention to the motivating motives, to the very desire for profit with the use of their official powers.

According to V. Mandybura, "corruption is a complex systemic institute with an exclusively anti-social orientation" (Mandybura, 2017). The generally recognized definition of corruption belongs to Professor C. Friedrich: "Corruption is a behaviour associated with a certain motivation, in particular, with the personal gain on a public account" (Revak, 2011). "Corruption is not only certain acts but also a system of negative attitudes, beliefs, guides, a way of thinking" (Nevmerzhihsky, 1999), that is, corruption is also a psychological and moral phenomenon. It cannot exist without people. Corruption has an impact on the economy, politics, the ideology of the nation, and so on.

In confirmation of the use of the methodology of neo-institutionalism for the analysis of corruption as an institution, it is necessary to give a description of the very notion of "institution," from the informal point of view.

According to D. North, "the institution is the rules of the game, consisting of official written rules, as well as, usually, unwritten codes of conduct that go beyond the formal rules and complement them" (North, 2000). That is, corruption acts as an institution in the institutional environment and is influenced by formal (written "rules of the game": laws, Constitution) and informal rules ("unwritten rules of the game": customs, traditions).

D. North's neo-institutional theory changes the classical institutional approach and adds to the institutional analysis the study of informal institutions that, in one way or another, have a significant influence on the functioning of the institutional environment.

G. Helmke and S. Levitsky point out that "informal institutions are social rules commonly written, created and executed outside officially authorized channels" (Helmke, Levitsky, 2007). That is, corruption can be considered one of the varieties of the informal institution. Changes in informal institutions are relatively slow.

O. Stoiko stressed that "informal institutions should not be considered as a threat to democratization," the scientist substantiates his position that "informal institutions change, weaken, and ruin the rules underlying formal institutions" (Stoiko, 2016).

We distinguish the main approaches to the concept of "corruption as an informal institution": scientific-theoretical, practical-applied, ethical, neo-institutional, and integrated.

We believe that from the point of view of the scientific and theoretical approach, corruption as an

informal institution should be considered as a social phenomenon that reflects the real situation in the state. That is, to conduct research on the influence of informal rules of conduct on the formal. With regard to the practical application, the developed mechanism to overcome corruption should be respected. Scientists should work to improve and eliminate contradictions in legislation. Transparency International's organization in the corruption investigation also uses the "ethical approach" with which one cannot but agree. In society, ethical rules of conduct must act.

From the point of view of the neo-institutional approach, corruption can be considered a kind of informal institute as acting contrary to the public interest in order to secure its own.

An integrated approach means that this problem has an interdisciplinary character.

The author's position is that the main attention of researchers should be focused on what prompts a person to commit such actions.

The Institute of Corruption as a specific institution with an absolute anti-social orientation has already gone far beyond the boundaries of the interaction of common market institutions. It is constantly parasitizing in the system of providing public services, and also present at the redistribution of public goods.

3. The reasons for the increase in corruption in the eastern part of Europe

According to the author, the main reasons for the high level of corruption in the eastern part of Europe:

The lack of trust in public institutions in the people. On the one hand, we are paternalistic enough (we expect the state to solve our problems), but when it comes to the state, we do not trust it.

Mentality "displays the historical process in the public consciousness, preserves the genetic code of the people, gives a sense of identity that determines a certain political and everyday behaviour. A significant part of the researchers almost unanimously gives some basic interrelated features of the traditional political mentality of in the eastern part of Europe society, namely: existential individualism, self-centeredness, introversion (the orientation of the psyche to the inner world), conservatism, social egalitarianism (aspiration for social equality), escapism (striving for illusory dreams), community-centeredness, provinciality, anarchy, general apoliticality. For example, Ukrainians are individualists, egoists. What does folklore say: "I have my hut at the end of the village, I do not know anything." Historically, Ukrainians belong to introverts, which are oppositional to any government. (Mykhnenko, 2013).

the absence of a national idea, ideology. We live in difficult times, in times of violent reform and military action. The population does not feel confident in

the future. Citizens should find something common, common principles of life, economic attitudes, social, political and spiritual principles of cooperation of each with all for the sake of overall progress. A key element of the ideological system is the national idea; indifference to society. This problem can be solved by patriotism (an integral part of the consciousness of each citizen). Before you blame the state for all your sins, you should think about what you have done in order to have a better life in our country? But on patriotism only you will not live, you need a material incentive to action; business-political relations (lobbying of own interests in legislative documents); ineffectiveness of the principles of the rule of law (impunity of illegal actions of officials), delaying the reform of the judicial system, analysts called the system of justice in Ukraine "rotten to the core" and complained about the political pressure on the judges (The Bleyzer Foundation 2016), ignorance and misunderstanding of the laws by the population; excessive tax and customs pressure on enterprises; partial transparency of operations and management decisions occurring within institutions and departments; confusion and incomprehensibility of the legislation in the Slavic countries of Eastern Europe; low wages and a correspondingly low standard of living of persons authorized to vest the functions of the state; high prices for goods and services.

According to the mentioned problems, three levels of corruption have already been clearly defined in Eastern Europe: political (distorting state decisions, leading to bad laws and distrusting people to the state), corruption is widespread in the interaction between business and government (market mechanisms do not function properly, no fair competition and lack of consumer protection); Daily bribes are a common occurrence (they often facilitate daily operations, for example, when a bribe helps to get certain goods or services cheaper or faster. In other cases, they take the form of extortion, for example, by the local business administrations (The Bleyzer Foundation, 2016).

According to the above reasons of corruption, it becomes clear that in the countries of Eastern Europe, and especially in the Slavic part of it, the action of informal institutions has a significant influence over formal. And with the aim of building an economically developed state, this should be taken into account in the first place.

4. The mechanism of overcoming corruption on the example of one of the countries of Eastern Europe

Ukraine is now on the path of reform, so we consider it expedient to study the mechanism of combating corruption on its example. In turn, the country's leadership rapidly implemented complex organization –

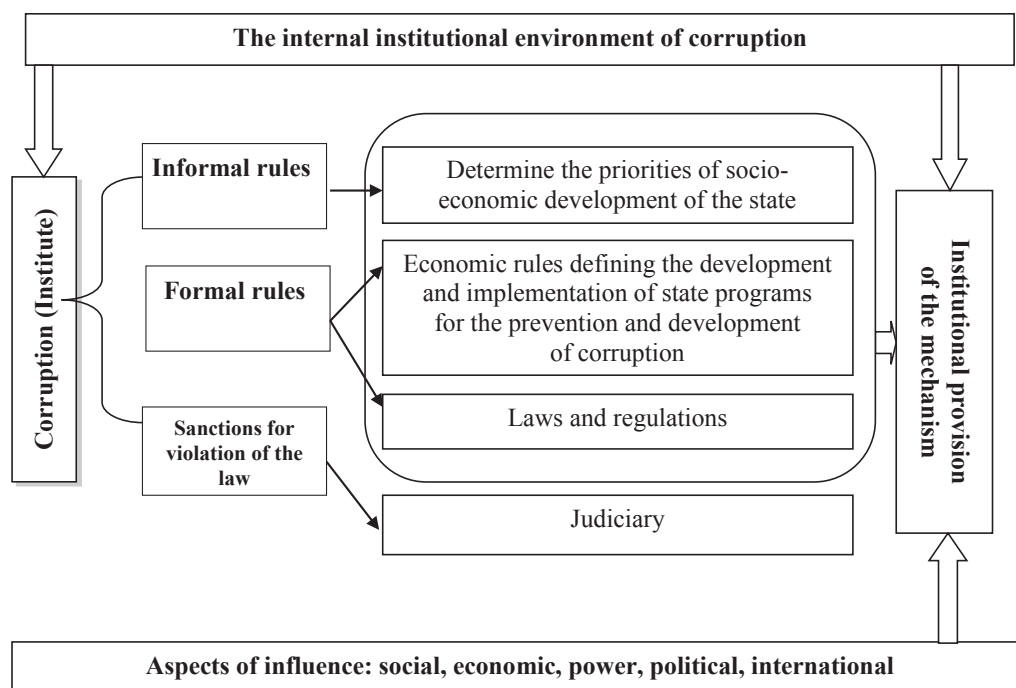


Figure 1. The system of the internal institutional environment of the mechanism of overcoming corruption

legal measures (adopted in 2014 the Law of Ukraine “On Prevention of Corruption” in 2018 the Cabinet of Ministers of Ukraine introduced to the Verkhovna Rada of Ukraine the Law of Ukraine “On Anti-Corruption Strategy for 2018-2020”).

To date, the following institutions have been operating in Ukraine to fight corruption: the National Agency for the Prevention of Corruption (monitoring life of civil servants on the basis of their declarations); National Anti-Corruption Bureau of Ukraine (prepares cases for investigation of corruption crimes but does not deal with administrative offenses); National Agency of Ukraine for Detection, Investigation and Asset Management of Corruption and Other Crimes, Specialized Anti-Corruption Prosecutor’s Office. At the legislative level, issues of coordination of activities and interaction of the entire system of state anti-corruption bodies are still not coordinated.

According to the author, in the fight against corruption, various mechanisms can be used. However, administrative and non-punitive actions should play a leading role. The focus should be on economic, legal, financial, organizational measures that will allow the state to prevent and eradicate corruption.

Aspects of influence (social: poverty, migration, economic: shadow economy, power: the influence of the rich population on the formation of government, political: legal reprisal against political opponents, international: negative impact on the international image of the country and loss of investment) have directly proportional effect on the institutional maintenance of the mechanism of the internal institutional environment,

directly affect the components of the subsystem, whose activities are carried out both in accordance with formal rules and informal. The study of the actions of informal rules is the cornerstone of the fight against corruption. The institutional environment of corruption is the place where corruption is taking place.

The mechanism of overcoming corruption will be effective in combining the challenges of society and the intentions of the state authorities to satisfy the desire of society. The author shares the opinion of V. Mandybura that: “The state must abandon a purely forceful approach and unjustified cruelty of punishment since historical experience has shown that unlawful strengthening of punishment for bribery can only increase the ‘quality’ of corruption conspiracy and scale up bribes” (Mandybura, 2017). According to the author, we will not be able to eradicate corruption quickly. The state is people. It is necessary to change the views of society towards the problem, and mental differences and morality add to their peculiarity.

Given our historical roots, mentality, we should begin with the formation of a new elite, that is, to introduce harsh measures in education. Educational reform will give us young, intelligent, creative people who will not allow corruption to develop. The next step should be to maximize the simplification of the current legislation, filling the existing gaps in it. It is also necessary to eliminate unnecessary supervisory authorities and licensing procedures (to make everything as transparent as possible).

Salaries for civil servants should be raised to such an extent that workers are afraid of losing their jobs (one of the

most important factors preventing the spread of corruption in Finland is the high material and social security of officials (official web corrupt. Ua., 2018)). In addition to raising wages, ensure a high level of responsibility.

To overcome political corruption – the abolition of parliamentary immunity is required.

The government must adhere to the anti-corruption strategy of the state, and state anti-corruption authorities must clearly delineate their functions and powers, remove duplication. An independent anticorruption court must act in Ukraine.

As an example of the fight against corruption in Georgia, one should conduct anticorruption propaganda (creative advertising in the media, showing arrests), this move will add a positive image to law enforcement.

5. Conclusions

Summing up the above, we can conclude that in the economic conditions in which a part of Eastern Europe finds itself today, the interaction of institutional mechanisms to combat corruption in the transition towards intensification of informal rules. Informal institutes compete with the formal, displacing the latter. In our opinion, precisely neo-institutionalism is the best methodology for analysing corruption in the state. The current analysis of corruption should start from the middle of the institute because corruption occurs precisely in the institutional environment.

Corruption in the country can be overcome but a prerequisite for this is the political will and support. First of all, it is necessary to intensify all efforts to form a national idea and popularize it among society, stereotypes must be broken. Society must have faith in a safe future.

According to the author, priority steps in the fight against corruption are:

reform of education, i.e. education of a new elite (formation of a general negative attitude and personal rejection of corruption, an increase of wages both for employees of secondary and higher schools);
civil service reform (high and clearly regulated wages, without the use of manipulations with bonuses);
clear regulation according to the Criminal Code of Responsibility for Every Kind of Corrupt acts and

judicial penalties (dismissal, fines, deprivation of liberty, deprivation of payment of a state pension);
annual control of property, assets and debts, the disclosure of declarations of subjects of power authorities, civil servants, etc.;

the ban on financing election campaigns, political parties and other political organizations of oligarchs (strict order of financial statements);

holding information companies on a permanent basis to eliminate tolerant attitude towards corruption, namely: firstly, popularization of the fight against corruptors (involving specialists in the spheres of jurisprudence, pedagogy, psychology, PR-technologies), and secondly, social advertising (public awareness of detection of corruption and discussion of consequences – punishment for corruption actions). These actions will contribute to the formation of corruption awareness about the dangerous impact of corruption on the development of society. Thirdly, the mandatory investigation of each media report on corruption cases and the corresponding invoice notification of the investigation authorities about the results of the investigation.

the development of a network of centres for free legal anticorruption assistance, the creation of anti-corruption receptions and direct telephones of trust, wide involvement of Internet resources where everyone will be able to offer their own vision of anti-corruption measures in state institutions (on the example of the Public Organization of the All-Ukrainian Centre for Combating Corruption and Assistance to Law Enforcement Agencies);

complete informatisation of public life, namely: firstly, in the free access information, for registered citizens on the site, about tax revenues, the receipt of funds from international organizations, and where these funds have been distributed, etc., and secondly, electronic queues and applications for state certificates, licenses, visits to family doctors, etc. (transparency principle).

For running the reforms, they need more reformers to change all spheres of public life (in the first place, education). Perhaps, to achieve this goal, one should abandon the democratic principles of the exercise of power and use the authority of the leader.

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ECONOMIC ACTIVITY OF ENTERPRISES OF THE TELECOMMUNICATION INDUSTRY IN CONDITIONS OF IMPLEMENTATION OF THE NEWEST TECHNOLOGIES

Liubov Stryi¹, Vasyl Orlov², Lolita Zakharchenko³

Abstract. *The purpose* of the article is to present the results of research on the direction of changing the content and forms of economic activity of telecommunication enterprises in the process of introducing the newest technologies. The article also proposes a micro model of one of the possible options for increasing the effectiveness of the economic activity of an enterprise by organizing its effective interaction with all participants of the telecommunication market. The study was performed on the example of communication enterprises operating in the communication space of Ukraine. Since the current markets for communication services integrated with the cyberspace of the Internet are virtually global, it can be assumed that the results are typical for other communication spaces. *Methodology.* Theoretical and methodological basis of the research are monographs, scientific books, scientific articles of modern scientists in the field of telecommunications, the newest information and communication technologies, economic globalization, development of the Internet. The basic documents that form the basis for analysing the performance of telecommunications enterprises are statistical data of the State Statistics Service of Ukraine. Other available Internet publications have also been used. To ensure the validity of research results, the following methods were used: survey methods for clarifying concepts; economic-statistical and method of graphic representation in the study of directions of changes in economic activity of telecommunications enterprises in Ukraine; economic modelling, in particular, the heuristic axiomatization approach, in the development of micro models of cooperation of the communication enterprise with other market actors in the process of economic activity, and some others. *Results.* The conducted researches confirmed the assumption that there is a redistribution of incomes during the introduction of the newest technologies in the economic activity of telecommunication enterprises. The share of revenues from the provision of telecommunications services is declining, the share of revenues from the provision of Internet services is increasing. To increase the effectiveness of economic activities of telecommunications enterprises, a micro model of cooperation has been developed and justified by the enterprise of communication with other market players in the process of economic activity. *Practical importance.* The micro model of interaction reflects the actual structure of interaction between telecommunications enterprises and all participants in the global telecommunications market. Practical implementation of the model can contribute to increasing the efficiency of the economic activity of telecommunications enterprises in the context of the introduction of new technologies. The model can also be used by other researchers to study various aspects of economic activity in the real market where telecommunication companies operate. *Value/originality.* The originality of the results lies in a detailed study of real trends of changes in the content of economic activity of telecommunication enterprises in the context of introducing new technologies, and in the development of a micro model for the interaction of the telecommunications enterprise with all other market players.

Key words: global market, economic activity, economics integration, internet services, infocommunications services, micro models of cooperation, survey methods, telecommunications.

JEL Classification: C42, F15, L96, O12

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1. Introduction

The introduction of the newest mobile communication technologies, broadband fixed technologies significantly expands enterprises communication capabilities. Further development of information technologies contributes to the creation of new information products, a significant increase in the capabilities of the global cyberspace of the Internet and its use in the economic activities of enterprises. The convergence of information and communication technologies allows us to continuously create and improve new infocommunication services that can meet the growing information needs of modern people. These factors stimulate the development of global markets for new and up-to-date services (communication services, information services, Internet services and others, which are integrated into the concept of "infocommunication services"). The economic activity of communication enterprises in the process of introducing new technologies is becoming different. In particular, there is a redistribution of income of the enterprise from the provision of telecommunications services to the provision of Internet services, as well as the provision of information services. However, the problem, the relevance of which is continuously increasing, practically is not studied by specialists, which leads to the feasibility of its research and publication of this article.

Literature review. One can single out several works published in recent years, where some possible aspects of solutions to this problem are described. The influence of the developing Fourth Industrial Revolution on the change in the economic activity of enterprises is described by the Swiss economist K. Schwab. K. Schwab, summarizing the experience and views of the world's leading experts, as well as the leaders of the largest corporations, outlined the scientific analysis of the directions of this revolution in the book "The Fourth Industrial Revolution". According to the author, the newest technologies can synthesize new more advanced and more efficient technologies. In addition, a staggering combination of technological breakthroughs is possible in a wide range of areas (Schwab, 2016). F. Kotler & L. Keller explored in their popular book some aspects of this problem, in particular, the choice of effective working strategies in the modern market (Kotler & Keller, 2014). P. Drucker investigated the impact of new technologies in the 21st century on any industry (Drucker, 2007). M. Castells in his monograph described the impact of the information technology revolution on economic development (Castells, 2000). In the monograph of T. Kuzovkova, L. Tymoshenko considered the requirements of the economy for infocommunication infrastructure, the laws of the infocommunication industry development (Kuzovkova, Tymoshenko, 2016). The authors of the monograph "Economy and Management of the Enterprise:

the Main Trends and Problems of Development" explored the functionality of the infocommunication services markets, possible directions for improving the economic activity of infocommunication enterprises (Golubev, Striy, Zakharchenko, 2015). The current state, development trends, and organization of economic activity of telecommunications enterprises in modern conditions are considered in the articles: A. Kling "What is Economic Activity?" (Kling, 2011); L. Zakharchenko "Model of the Process of Economic Activity of a Modern Enterprise" (Zakharchenko, 2014); L. Striy "Global Economy: the Current State of Global Markets" (Striy, 2016). However, among many publications about the analysis of the economic activity of telecommunications enterprises, there are practically no works about the impact of the introduction of new technologies on the efficiency of economic activity.

The methodology of the research. Theoretical and methodological basis of the research are monographs, scientific books, scientific articles of modern scientists in the field of telecommunications, the newest information and communication technologies, economic globalization, development of the Internet. To ensure the validity of research results, the following methods were used: survey methods for clarifying concepts; economic-statistical and method of graphical representation in the study of the direction of changes in economic activity of telecommunications enterprises in Ukraine; economic modelling, in particular, the heuristic anaxiomatization approach, in the development of micro models of cooperation of the enterprise of communication with other market actors in the process of economic activity, and some others.

Statement of the task of the article. The task of this article is to present the author's vision of the following aspects of this problem:

- clarification of the modern content of concepts;
- research trends changes in the economic activities of telecommunications enterprises in Ukraine;
- representation of the model of interaction of the communication enterprise with other market entities in the process of economic activity.

2. Clarification of the modern content of concepts

The modern economic activity of communication enterprises as a result of the introduction of new technologies, increased competition, the globalization of telecommunications service markets, and the impact of other factors is substantially transformed both in content and in form. Therefore, it is useful to clarify, in accordance with the new conditions, the formulation of the basic concepts associated with this problem: economic activity and global markets.

Clarification of concepts is performed by survey methods.

"Economic activity". There is no generally accepted definition for this concept yet.

The most common formulations are next.

Economic activity is any activity of economic entities aimed at obtaining economic benefits (<https://studfiles.net/preview/1003463/page:13>, 2018).

Economic activity is a set of actions at different levels of management, as a result of which people satisfy their needs through the production and exchange of material goods and services (http://abc.informbureau.com/html/yeiiiexaneass_aassoaeuiinou.html, 2018).

The authors of the work (Golubev, Stryi, Zakharchenko, 2015; Kling, 2011; Gukasyan, 2003) treat the content of this concept as follows. The term "economic activity" comes from the word "economy" and takes its origins from the "model of an economic man" proposed by Adam Smith. The model describes the behaviour in the market of the main subjects of the market for entrepreneurs and consumers. According to A. Smith, an economic person acts in the market selfishly and rationally. He seeks to maximize profits as an entrepreneur and to maximize utility as a consumer. In the conditions of complete freedom of entrepreneurship, the producer strives to be guided by his own interests. But the laws of the market force him to produce not the products he would like to produce, but only those which are in demand, and sell them at the lowest possible price since only in this case he will be able to surpass his competitors and increase profits. Thus, an entrepreneur may not think about the well-being of society, however, the market forces him to act rationally, as a result of his egoism benefits society, providing abundance in the market for goods and services of better quality and at a lower price. The activity of an economic person in the market is an economic activity (Golubev, Stryi, Zakharchenko, 2015; Gukasyan, 2003).

The economic activity of the enterprise unites all types of work that must be performed to ensure that the target consumer receives the goods and services necessary to him. This is a set of actions, operations, work (business processes), the implementation of which leads to the receipt of an appropriate set of products or services that can meet certain needs and can be a product of exchange. The economic activity becomes profitable when the market has a certain effective demand for goods and services that the enterprise can offer (Golubev, Stryi, Zakharchenko, 2015).

Thus, the economic activity of the enterprise includes all types of processes and works aimed at the production and supply to the market of goods and services that are recognized by consumers as useful and for which there is (or may be) demand. It should be noted that in global markets, communications companies can offer the market the newest products not known to consumers and for which demand needs to be formed. This is one of the features of the economic activity of communication enterprises (as well as other enterprises) in global markets.

"The Global Market". The problem of the globalization of markets began to be studied by researchers after the publication in 1983 of T. Levitt's book "Globalization of Markets", the main idea of which is to affirm that all people living on the planet are more likely to have a similarity than a difference. Modern communication technologies contribute to universal and comprehensive universalization – the world turns into one big village. Enterprises can make good money if they, forgetting about differences, focus on the similarity of consumer preferences (Levitt, 2001).

According to Stryi L., the global market is an open market in which enterprises are trying to sell identical high-quality goods, using the same methods of marketing and management; The global market benefits both producers and consumers (Stryi, 2016).

Thus, the modern market for communication services, integrated with the help of cyberspace Internet, is a global market. This market has an all-planetary infrastructure, on which, ideally, every person on the planet can have free access to all world communications and information resources.

3. Research trends changes in the economic activities of telecommunications enterprises in Ukraine

The basic information documents that form the basis of the study are the statistical reports of the State Statistics Service of Ukraine, the section "Economic Statistics", the subsection "Information Society", tables "The volume of services sold in the telecommunications and postal communications" for 2004-2017 (State Statistics Service of Ukraine, 2018). In the process of analysis, only those data are used that relate to the investigated problem. Articles were also used (Stryi, Orlov, Zakharchenko, Golubev, Bogatyreva, 2017, Telekom: itogi 2017, 2018; Stryi, Golubev, Bogatyreva, Savitskiy, 2018).

During the period under study, Ukraine's telecommunications developed dynamically. In 2016, the total income of all enterprises of the industry from the provision of telecommunications services was 52 366 million UAH (revenue growth compared to 2015 was 3.36%). In 2017, the total income of all enterprises of the industry from the provision of telecommunications services amounted to 55 127 million UAH (revenue growth compared to 2015 was 5.27%). It is evident that thanks to the introduction of the newest communication technologies in the industry, a favourable environment has developed for improving the performance of the economic activity.

According to the terminology of the State Statistics Service of Ukraine, telecommunication enterprises provide consumers following types of services:

– fixed telephony services (urban, rural, long-distance and international communication);

- mobile communication services;
- satellite communication services;
- internet services;
- other services.

In the future, three types of services will be considered in the analysis of the survey results:

- telecommunication services;
- internet services;
- other types of services.

Telecommunication services include fixed-line services and mobile communication services.

The term “Internet services” was first used in statistical information in 2016. In previous years, the State Statistics Service of Ukraine in the section “computer communication” in a separate line showed “Internet access services”. Therefore, in this article, the semantic content of “Internet services” is understood as communication activity for connecting a terminal (computer, smartphone, and any other device) of a consumer to the Internet.

The distribution of incomes of telecommunications enterprises by types of services in the period of 2015-2017 is presented in Table 1.

Table 1

Distribution of incomes of telecommunications enterprises by types of services, 2015-2017, mln. UAH

Types of services	2015	2016	2017
Telecommunication services, including:	41081	40595	41264
mobile communication services	33206	34077	35217
fixed line services	7885	6518	6047
Internet services	7144	9102	10818
Other types of services	2431	2669	3045
All types of services	50666	52366	55127

Source: own research on the basis of (State Statistics Service of Ukraine, 2018)

Figure 1 shows the dynamics of changes in the share of revenues of the main types of services in 2014-2017.

From the graphs in Fig. 1 it can be seen that in the process of introduction of the newest technologies began the redistribution of income shares by types of services. The share of revenues from the provision of telecommunications services in 2016 decreased by 3.58% compared to 2015, in 2017 – by 2.87% compared to 2016. For two years, the decline was 6.45%.

The share of revenues from the provision of Internet services increased in 2016 by 3.28% (compared to 2015), in 2017 – by 2.24% (compared to 2016). In two years, the growth in the share of revenues from the provision of Internet services amounted to 5.52%. There is a redistribution of the share of revenues from the provision of telecommunications services in favour of Internet services.

The same conclusion regarding the research of the results of 2016 is made in the article (Stryi, Orlov, Zakharchenko, Golubev, Bogatyreva, 2017). This means that the situation of “improving the effectiveness of economic activity” from the introduction of new technologies is becoming sustainable.

The reasons for this development of this trend are the following. Due to the price and technological reasons, Internet services were provided mainly by specialized telecommunications companies – Internet providers. After the introduction of the newest technologies by enterprises, the connection to the Internet became available with the help of smartphones, tablets, and other mobile communication devices. Internet services began to provide (and receive additional revenue), most mobile companies. With the growth in the number of Internet users, the introduction of 3G, 4G technologies by telecom operators, the improvement of the mobile Internet, the demand for Internet services and, accordingly, the profit of enterprises from providing these services will grow.

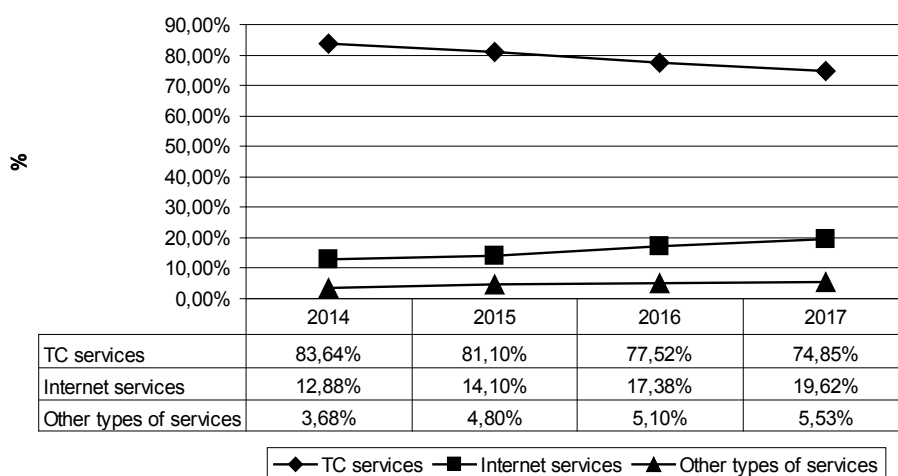


Figure 1. The dynamics of the change in the stake of income of types of services

Source: own research on the basis of (State Statistics Service of Ukraine, 2018)

After the introduction of these new technologies, Internet users in Ukraine have great opportunities to receive infocommunication services.

Infocommunication services – a relatively new phenomenon in the economy. Infocommunication services have made it possible to more effectively meet the continuously growing needs of people in a variety of information and modern information products that arise in their economic and other activities. The formation of the information service begins with the consumer, accessing the Network with the help of his provider, finds an Internet company (intermediary), and formulates the requirements for the information product that he needs. The Internet company (intermediary) communicates with the manufacturer of the information product or (in most cases) with the enterprise that replicates the information products. After solving the issue of payment, the consumer receives the product he needs directly to his terminal. In more detail, this trend is considered in (Golubev, Stryi, Zakharchenko, 2015).

After the introduction of the newest technologies, the desire of telecommunication enterprises to increase profits through the production and distribution of their own infocommunication services has emerged.

The most common are the following infocommunication services which communication companies seek to provide to their customers:

- interactive television;
- a variety of video products (films, radio broadcasting, concerts, karaoke and much more);
- IP-telephony;
- software.

The range of infocommunication services, which communication companies strive to provide to their customers, is continuously expanding, the quality of services is growing. The demand for these services is stable. The additional profit of enterprises from the provision of these services is also stable. This is a promising direction for the development of the economic activity of communication enterprises (Golubev, Stryi, Zakharchenko, 2015).

4. The model of interaction of the communication enterprise with other market entities in the process of economic activity

In the global market for telecommunications services, communication enterprises interact with all other market players. At present, the market is in the stage of development and structuring. In these cases, an effective method of his research is modelling using the heuristic anaxiomatizational approach. This approach allows us to make full use of the creative abilities of the researcher, a deep understanding of the essence of the simulated process. At the same time, it also allows you to drop the non-essential in order to focus on the

main thing. This reduces the time for constructing the model and the effectiveness of its use by avoiding the formal description of nonessential details and elements (Philosophical dictionary, Ed., I. T. Frolov, 5th edition, 1987).

Driving one of the possible variants of the model (authoring) is shown in Fig. 2. When preparing the model and its description, the information data is used from the following sources (Schwab, 2016; Castells, 2000; Zakharchenko, 2014; Stryi, Zakharchenko, Golubev, 2014).

Consumers of telecommunications services, Internet services, and information and communication services are all Internet users, all organizations, government, culture, education, the army, the entire population, which provides massive demand for these services, steadily growing market demand and more high requirements for the quality and format of these services. This tendency is considered more detailed in the monograph (Golubev, Stryi, Zakharchenko, 2015).

The system of interaction between enterprises of communication among themselves (within the segment of communication services) is a network structure, which is somewhat conventionally shown in Figure 2.

Network organization of economic activity is most effective in the rapidly changing conditions of the modern economy. M. Castells notes that the formation of an information economy and globalization is characterized by the development of a new organizational logic. In his opinion, an effective organizational form of the modern economy is a network enterprise (Castells, 2000). Network organization of markets is characterized by high efficiency of economic activity; it is able to ensure effective interaction of all market participants and rapid adaptation to changes in the external environment (Stryi, Zakharchenko, Golubev, 2016).

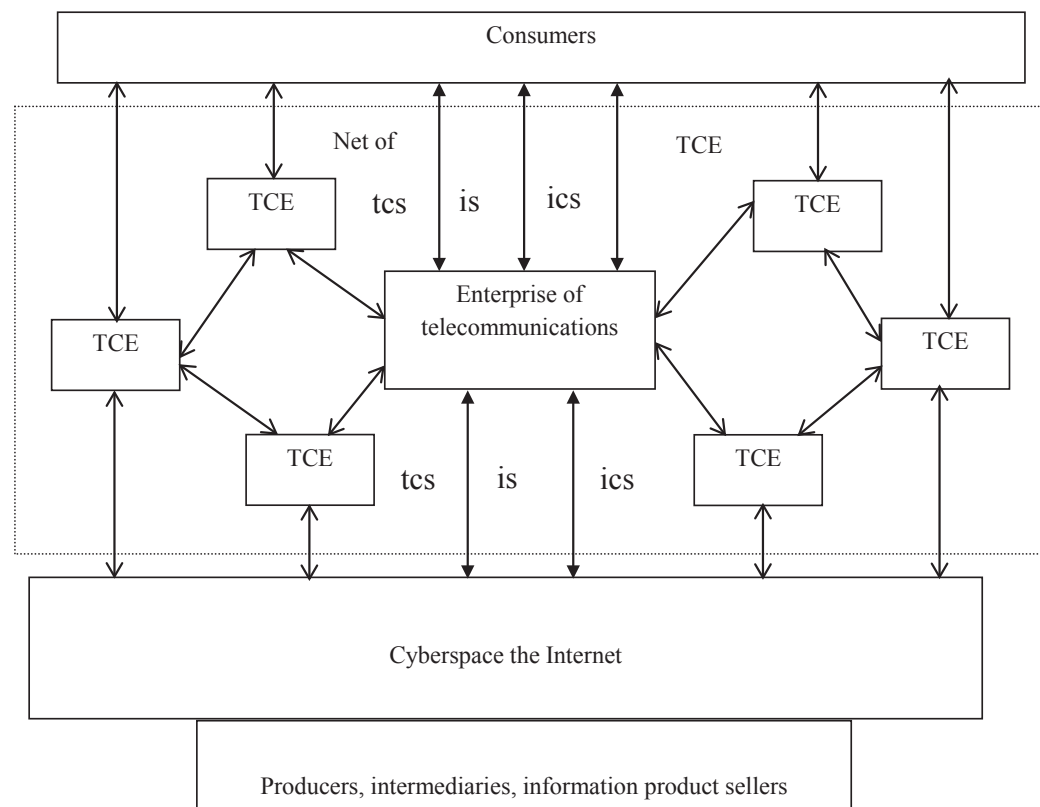
The consumer can interact with the communication enterprise in three ways.

Providing communication services (tcs in Figure 2 – Traditional mobile and fixed telephony). Currently, communication is the main interaction. Providing these services brings the greatest revenue to businesses.

Provision of Internet services (is in Figure 2 – services of access to the Network). The consumer receives the access channel to the cyberspace of the Network and solves his problems. The income of enterprises from the provision of these services increases, as shown above.

Provision of own infocommunication services (ics). Many communication enterprises, as already mentioned, themselves begin to produce infocommunication services (ics in Figure 2). This is a promising area of cooperation, in which both consumers and communication enterprises benefit. However, the share of revenues from the provision of these services is still small.

Producers, brokers, and distributors of information products act continuously expanding a number of different companies: internet companies, enterprises



Legend: TCE – enterprise of telecommunications; tcs – telecommunication services; is – internet services; ics – infocommunication services.

Figure 2. Model of interaction of the enterprise of communication with other market actors in the course of economic activity

Source: own development

producers of information products, enterprises, duplicating information products, business intermediaries, enterprises distributors, media businesses and other (Stryi, Zakharchenko, Golubev, 2014; Stryi, Golubev, Zakharchenko, 2016).

This model (Figure 2) reflects the actual structure of communication enterprises' interaction with other participants of the global market and can be used by other researchers to solve various aspects of the study of the modern global market where telecommunications enterprises operate.

5. Conclusions

The study of the problem of the impact of the newest information and communication technologies, as well as their convergence on the development of the economic activity of telecommunications enterprises in the conditions of global markets, makes the following conclusions.

1. The notions “economic activity” and “global market” are specified. The economic activity of the enterprise includes all types of processes and works aimed at the production and supply to the market of

goods and services that are recognized by consumers as useful and for which there is (or may be) demand. It is noted that the modern market for communication services, integrated with the cyberspace of the Internet, is practically a global market. This market has an all-planetary infrastructure, on which, ideally, every person on the planet can have free access to all communications and information resources of cyberspace Internet.

2. The conducted studies confirmed the assumption that in the process of introduction of the newest technologies in the economic activity of telecommunication enterprises, there is a redistribution of incomes. The share of revenues from the provision of telecommunications services is declining; the share of revenues from the provision of Internet services is increasing. So, according to the State Statistics Service of Ukraine, in 2015, the share of revenues from the provision of telecommunications services by Ukrainian communication enterprises was 81.10%, in 2017 – 74.85%. The share of revenues from the provision of Internet services in 2015 was 14.10%, in 2017 – 19.62%.

3. To increase the effectiveness of economic activities of telecommunications enterprises, a micro-model of cooperation (micro models of cooperation) of

a communications enterprise with other market players in the process of economic activity has been developed and justified. The micro interaction model reflects the actual structure of the communication enterprise's interaction with all participants of the global telecommunications market. Practical implementation of the model can contribute to increasing the efficiency of the economic activity of telecommunications enterprises in the context of the introduction of new technologies. The model can also be used by other researchers to study various aspects of economic activity in the real market where telecommunications companies operate.

4. The originality of the results obtained in the course of the study consists of detailed study of the real trends in the changes in the content of economic activities of telecommunication enterprises in the context of the introduction of new technologies, as well as in the development of a micro model for the interaction of the telecommunication enterprise with all other market actors.

As further directions of research on this problem, it is possible to recommend studying the changes in demand for services under the influence of regulating price parameters of services in online modes.

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INTERNATIONAL EXPERIENCE OF DECLARING PROPERTY, ASSETS AND PRIVATE INTERESTS

Anna Tytko¹, Hanna Stepanova²

Abstract. *The aim of the article.* To analyse the specificities of asset and private interest declaration by public officials and representatives of political power, as well as to suggest the author's original differentiation of declarations of assets, income, private interests, and gifts. *The subject of the study* is the procedure for submitting declarations by persons entrusted with functions of the state and local self-government bodies in some countries of Western Europe. *Methodology.* In the article, the method of deduction and induction enabled to study the features of violating the requirements of financial control through the procedure for submitting a declaration by persons entrusted with functions of the state and local authorities. The methods of deduction and synthesis enabled to define the concept of "asset and interest declaration", practiced in some countries of Western Europe. A comparative legal analysis enabled to study the procedure for submitting an income and expenditure declaration in some Western European countries, identifying the main types of conflict of interest and income declarations, as well as differentiating persons obliged to submit declarations. *The results of the study* revealed that the foreign experience of asset declaration is closely intertwined with the private interest declaration. *Practical implications.* In the study: first, the specificities of foreign declaration practice, according to the subjects of such declaration submission, are outlined; second, the procedures for submitting declarations of income and expenditures, as well as interests, are analysed and compared; third, the author's perspective on the differentiation of declarations and declarants is substantiated. *Relevance/originality.* The comparative legal analysis enabled to study the procedure for submitting a declaration of public officials in some countries of Western Europe, empowering to form perspective areas of legislation development in this sphere.

Key words: declaration, private interest, property and assets, conflict of interest, public official, financial control, gift.

JEL Classification: G18, H53, O15

1. Introduction

In most European countries, an income and expenditure declaration is considered as a mechanism of effective financial control and as a means of preventing corruption offenses. Nowadays, since corruption offenses grow intensively in the financial and economic sphere, corporate corruption strengthens, the number of offenses related to corruption, abuse of public funds increase, the tendencies of nepotism and cronyism in the system of the state budget distribution strengthen, the issue of improving the declaration procedure is very relevant. The corruption offenses and offenses related to corruption were studied by scholars, such as V. B. Averianov, Yu. P. Bytiak, M. Yu. Bezdolnyi, O. I. Butovych, O. Yu. Drozd, O. V. Klok, V. K. Kolpakov, A. T. Komziuk, M. I. Melnyk, V. Kiselechnyk, V. Ya. Nastiuk, S. S. Rohulskyi, M. Stefanchuk, M. I. Khavroniuk, T. V. Khabarovova, and others.

Therefore, the interrogation of income, asset, and private interest declaration in some countries of

Western Europe, as well as differentiation of the subjects responsible for the declaration, becomes relevant and is considered in this paper. For the successful achievement of these aims, the following tasks should be carried out: 1) to consider submitting declarations by persons entrusted with functions of the state and local self-government bodies practiced in some Western European countries; 2) to differentiate specificities of submitting declarations of a conflict of interest and declarations of income; 3) to determine the procedure for submitting a declaration in the financial control system; 4) to carry out a comparative analysis of the procedure for declaring assets in Ukraine and abroad; 5) to determine the subjects of submitting asset declarations.

2. Presentation of the main material

Nowadays, the declaration of assets is a part of the system of financial control since this procedure can be considered as an administrative and legal means of preventing corruption. Foreign experience shows that

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a declaration can include not only the obligation to declare incomes and expenditures but also the fixing of personal and family members' private interests.

Therefore, an unresolved issue is the declaration of income, expenditures, property, other assets, financial obligations of the declarant's family members.

Abuse of official position and excess of authority by public officials causes deepening of illicit enrichment, furthermore, discredits the apparatus of state power and spreads corruption offenses in society. From year to year, each state strengthens procedures for financial control over the incomes of public servants, for example, through the procedure for declaration of incomes and assets by high-ranking officials (Prevention of Corruption in the Public Sector in Eastern Europe and Central Asia).

The issue of declaring assets by persons entrusted with functions of the state or local self-government causes constant complications. Due to the changes in the anti-corruption strategy, the current legislation changes constantly, giving rise to many problems associated with the late submission of a declaration, therefore, the study of international experience in declaring incomes is relevant. In the countries of Western Europe for a long time, a procedure for declaring assets exists, which is often accompanied by simultaneous declaring private interest.

Legal liability for violating the requirements of financial control contributes to raising the level of responsibility of public officials as persons entrusted with functions of the state and local self-government bodies.

Today, ignorance of the current legislative provisions often leads to legal liability for those who hold responsible and particularly responsible positions, which may adversely affect further career advancement, since persons liable for corruption offenses cannot subsequently enter the public service or hold positions in law enforcement agencies.

The asset declaration system enables to implement a number of tasks that should be resolved through the introduction of a transparent mechanism for demonstrating all financial revenues of public officials, preventing conflicts of interest, investigating cases of illicit enrichment and other unlawful actions by persons performing managerial and administrative functions, moreover, ensuring public confidence in the state apparatus.

Declarations of assets and expenditures are considered as a key tool for preventing a conflict of interest and identifying illicit enrichment. In accordance with Part 5 of Article 8 of the UN Convention against Corruption, each State shall establish measures and systems requiring public officials to make declarations to appropriate authorities regarding, inter alia, their outside activities, employment, investments, assets and substantial gifts or benefits from which a conflict of interest may result with

respect to their functions as public officials (Konventsiiia Orhanizatsii Obiednanykh Natsii proty koruptsii).

In Europe, two types of such declarations are differentiated:

- general declarations of personal interests and interests of family members or close relatives;
- participants' declaration of any interest they may have in a case pending before a legislative body or an executive authority where they are members.

In most European countries, financial declarations of public officials are defined as "income and asset declarations" or "financial disclosure/asset declarations." The provisions of anticorruption legislation reveal that the purpose of financial declarations is to monitor selectively the lifestyle of the subjects of declaration in order to establish the conformity of their standard of living with the assets and income received by them and their family members in accordance with the declaration of a person entrusted with functions of the state and local self-government bodies.

In each country, the declaration of assets is included in certain areas of regulatory policy of the legislature in different ways.

All existing schemes can be grouped into three main categories, such as the general legislation on the regulation of public service; special legislation on the declaration of income, conflict of interest and on the anti-corruption; special legal regulations.

The main categories of information that requires declaration are movable and immovable property, valuable assets, gifts, debentures, etc., but the point remains about the need to declare travel paid by third parties, especially high percentage (41%) of such declaration is in the countries of the Organization for Economic Cooperation and Development with high income (Table 1).

Proper consideration of the asset declaration as one of the main mechanisms for counteracting corruption requires differentiating the main tasks of this system, including preventing conflicts of interest and illicit enrichment. Most European countries combine these two goals in a successful symbiosis by declaring income and expenditure.

Model of asset declaring in order to identify the fact of illicit enrichment aims to reveal the concealment or theft of assets and criminal and administrative liability.

Another model aims to identify a conflict of interest, in particular, situations from which corrupt behaviour may result with respect to the functions of a public official.

Subjects of the declaration are different public officials depending on the duties assigned to them. For example, persons obliged to declare assets are: in Armenia, Bulgaria, France, Norway, Sweden, the members of parliament and government; in Armenia, Bulgaria, France, Kosovo, Portugal, Spain, political officials of a particularly responsible position; all public

servants in Belarus, Latvia, Poland; special categories such as advisers and officials at state-owned enterprises, in Bosnia and Herzegovina, Ireland, Latvia, Lithuania, Portugal, the United Kingdom; ministers and managers in Albania, Estonia, Ireland (Using Asset Disclosure for Identifying Politically Exposed Persons).

First of all, a declaration consolidates information on personal income, assets, gifts, expenditures, monetary and non-monetary interests. A declaration of income does not necessarily cover all the assets of a person, but only that part, which can directly or indirectly contribute to a conflict of interest or lead to the illicit enrichment of a person.

It is also widespread to include in the declaration and disclose information about the assets of family members of persons who are in the public service (working in the state sector). Family members usually include spouses and minor children.

In countries such as Armenia, Azerbaijan, Belarus, Georgia, Latvia, Moldova, and Ukraine, three types of declarations exist: 1) annual declarations (submitted annually during the performance of the functions of the state and local self-government bodies); 2) a declaration submitted at entering the office; 3) a declaration submitted after release (Yak deklaruiut maino derzhsluzhbovtstv u riznykh krainakh svitu).

In addition, the financial control system can include other types of declarations, such as a declaration of substantive changes in property status (Macedonia) and so-called exceptional declarations (Albania), where officials file declarations to determine the source of monetary assets from the third parties during the performance of their official duties. International practice differentiates administrative, criminal, civil,

and disciplinary liability for violation of the procedure for declaring income.

According to international reports, the procedure for filling in declarations has a number of shortcomings, such as late submission of an income declaration; incompleteness of the information submitted in the declaration; failure to submit a declaration of income; submission of inaccurate information in the declaration; concealment of income or assets (Tilman Hoppe).

Analysis of the experience of declaring assets and private interests enables to distinguish the following types of asset declarations.

The personal income declaration is a financial document for property income, which is not mandatory in France, while in Germany and the UK, members of the parliament are required to declare income, but this does not apply to representatives of local self-government bodies. For example, Members of the British Parliament must declare income if they exceed £59,000 (Tilman Hoppe).

In Hungary and Italy, members of parliament (in Italy, public servants as well) declare income, while in Poland, representatives of local self-government bodies, as well as politicians and members of parliament, are required to declare their income. In Latvia, both politicians and public servants fill the declarations.

The declaration of family income is also a means of financial control, which indicates the income of family members and relatives. In Poland, the subjects of such declaration are representatives of local self-government and politics. In Hungary, all family members living with politicians and public servants shall declare their income.

The gifts shall be declared in Latvia by all public servants, including representatives of local self-

Table 1

Information categories reflected in the declaration

	World	Asia	Europe and Central Asia	Latin America and the Caribbean	Middle East and North Africa	The high-income OECD countries
Real Estate	88%	100%	90%	100%	82%	78%
Sources of income	77%	73%	95%	96%	45%	100%
Stocks and securities	86%	100%	95%	100%	64%	87%
Bank accounts	80%	86%	86%	100%	64%	72%
Cash (not in accounts)	29%	45%	38%	37%	36%	16%
Income	67%	73%	90%	93%	27%	63%
Movables	80%	86%	90%	100%	82%	56%
Obligations	72%	82%	71%	100%	45%	56%
Activities prior to work in the public sector	58%	45%	71%	85%	27%	75%
Combined managerial posts	41%	45%	38%	33%	27%	84%
Gifts	39%	59%	57%	33%	9%	53%
Other part-time positions	30%	32%	19%	19%	36%	69%
Unpaid activity	29%	18%	38%	22%	9%	69%
Expenditures	18%	18%	38%	22%	0%	25%
Travel paid by third parties	14%	14%	5%	4%	0%	41%
Activity after termination of work in the public sector	14%	0%	29%	7%	0%	34%

government bodies and members of parliament. In Poland, this applies only to politicians and elected local officials, in Hungary, to members of parliament. In Germany, Spain, and the United Kingdom, politicians and members of parliament are subject to such declaration. For example, members of the British Parliament must declare gifts, if their value exceeds 1% of their wages, in Germany, when it exceeds EUR 5,000, in France, any gift is declared regardless of value (Tilman Hoppe).

A declaration of the private interest related to contractual management is one of the politician's declarations required in Portugal and Spain (includes income information for three years before the appointment and, accordingly, two). In Germany and Spain, this declaration is obligatory for representatives of local self-government bodies.

In the UK, politicians declare the private interest and interests of family members and close associates whenever a reason to believe that the latter may influence their decisions occurs. In France, Hungary, Italy, and Poland, the submission of such a declaration is not obligatory, but in case of an existing conflict of interest, the person is obligated to declare the private interest.

3. Conclusions

Declarations of private interests and assets/incomes are often not delimited, so one declaration, as a rule, combines information on private interests and existing property assets.

The most common types of declarations are:

- 1) A declaration of private interests related to decision-making and voting, which is formally a declaration of private interests and is obligatory in countries such as Portugal, Spain, and Germany. In the UK, a public official, a member of parliament and a representative of the local self-government body are required to declare private interests, both their own and ones of family members and close associates, whenever they influence making important decisions in the performance of their duties.
- 2) An income declaration. This income declaration is not obligatory if any declarations of private interests and assets exist. Commonly, the income declaration applies to politically elected persons and elected local officials.
- 3) An asset declaration enables to identify and control the conflicts of interest of local elected officials, members of parliament and political parties. This declaration is widespread in Hungary, France, and Spain.
- 4) An income declaration of the family is established mainly for the declarants, who hold political positions, responsible and especially responsible positions in public authorities.

Specific rules of declaration regulate the procedure for receiving gifts, as the latter can become a prerequisite for illicit enrichment, so the gifts are regulated by strict rules and prohibitions. In European practice, gifts are prohibited if: 1) a gift calls into question a public official's independence and freedom to act; 2) gifts cannot be disclosed for public authorities and citizens; 3) the market value of a gift exceeds the established rate.

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SUSTAINABLE DEVELOPMENT OF AGRICULTURAL PRODUCERS IS A CONDITION FOR THEIR SUCCESSFUL FUNCTIONING IN THE WORLD MARKET

Hanna Fedosieieva¹

Abstract. *Purpose.* Substantiation of a holistic system of goals of steady development of agricultural producers on the conditions of their successful functioning in the world market taking into account global and local trends in the development of the world economy, peculiarities of agricultural activity in Ukraine, and directions of development of the world agricultural market. *The methodology of research.* The reliability of the study is due to the use of an integrated approach and a significant set of research methods, in particular: systematic approach – in studying the connections between phenomena and processes in the system of formation of a holistic system of steady development of agricultural producers on the conditions of their successful functioning in the world market; monographic – for a comprehensive and in-depth study of the peculiarities of the modern manifestation of the key factors of sustainable development of agricultural producers, provided that they operate in the world market; dialectical and abstract-logical – when conducting theoretical generalizations and forming conclusions; the method of scientific abstraction – with a selection of key factors that determine the steady development of agricultural producers; etc. *Findings.* Considered the main goals of sustainable development on the basis of values, principles, and key factors of the development of the world economy. Determined the main global tendencies of development of the world agricultural market. On the basis of the study, an integrated system of goals for the steady development of agricultural producers in the conditions of their functioning in the world market has been formed. It is noted that the basis of the sustainable development of any system is a combination of economic development with a minimal negative impact on the environment and the socialization of newly created economic transformations. *Originality.* The integrated system of goals of steady development of agricultural producers in the world market, which includes three interconnected blocks: economic, social and ecological, for which each priority is defined, is substantiated. The main conditions for achieving these goals are presented. *Practical implications.* The obtained results can be used in substantiating directions of the formation of stable competitive advantages of agricultural producers in the world market.

Key words: sustainable development of agricultural producers, world market, agricultural productivity, profitability of agricultural activity, social development, ecological development, innovative technologies.

JEL Classification: Q17, D92, Q50

1. Introduction

The United Nations Millennium Declaration, adopted in 2000 by the 189 countries at the UN Millennium Summit, defined the Millennium Development Goals, a comprehensive framework of values, principles, and key development drivers by 2015. In September 2015, in the framework of the 70th session of the UN General Assembly in New York, the United Nations Summit on Sustainable Development, and the adoption of the Agenda for Development after 2015, which approved new development benchmarks, took place. The final document of the Summit “Transforming our world: the 2030 Agenda for Sustainable Development”

approved 17 Sustainable Development Goals and 169 Objectives. More than 800 leading experts in the thematic areas of sustainable development have been involved in adapting identified goals and objectives in Ukraine. Representatives of ministries and agencies, government agencies, UN agencies in Ukraine, international organizations, the business community, expert community, public organizations (primarily those representing the interests of the most vulnerable groups), and civil society represented the proposals for sustainable development of Ukraine. This work was supported by all UN agencies in Ukraine, the United Nations Development Program in Ukraine,

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the Green Economy Program implemented by the German Society for International Cooperation on behalf of the Federal Ministry for Economic Cooperation and Development of Germany and jointly with the Institute of Demography and Social Studies named after M. V. Ptukha, National Academy of Sciences of Ukraine. As a result of this work, the goals of sustainable development of Ukraine in four directions were identified: fair social development; sustainable economic growth and employment; effective management; environmental balance and sustainability. The public vision of Ukraine's development until 2030 includes such benchmarks for achieving as the welfare and health of the population, which will be provided by the innovative development of the economy, built on the sustainable use of natural resources. The structure of exports envisages changes aimed at shifting from raw materials and products of primary processing to high value-added products and services. Economic growth should be based on the green economy model. Thanks to energy saving measures and the use of energy efficient practices, the energy intensity of the gross domestic product should be substantially reduced.

Concerning agriculture, the national goals of the sustainable development of Ukraine in this direction are determined by: increasing the productivity of agriculture twice, first of all, due to the use of innovative technologies; ensuring the establishment of sustainable food production systems that contribute to the conservation of ecosystems and gradually improve the quality of land and soils, primarily through the use of innovative technologies; the restoration of degraded lands and soils with the use of innovative technologies; reduction of food loss in production and supply chains. In addition to the aforementioned, the Ministry of Economic Development and Trade of Ukraine has developed a number of tasks, which should be carried out according to the types of economic activity (to create financial and institutional systems that will ensure the development of scientific research and scientific and technical development). In addition, specific tasks relate to the rural population (increase the level of employment, provide access to vocational education, ensure access to social services), infrastructure provision of rural life (to develop a high-quality, reliable, sustainable, and accessible infrastructure based on the use of innovative technologies) and other.

The objective of the work is to substantiate the integral system of tasks of sustainable development of agricultural producers in the conditions of their functioning in the world market taking into account global and local trends of world economic development, peculiarities of agricultural activity in Ukraine, and directions of development of the world market for agricultural products.

2. The system of sustainable development of agricultural producers

The globalization of the world economy has led to the emergence and rapid development of the following processes: a violation of the stability of metabolic processes in the biosphere due to man-made and anthropogenic burden; world food problem; stimulation of ecologization of agricultural production and increase of demand for organic agricultural products in the developed countries of the world; increase of world volumes of production of genetically modified agricultural products; annual reduction of world land (including agricultural land) and water resources; rapid development of bio- and energy-efficient technologies, etc. The identified processes directly affect the trends of world trade in agricultural products.

Thus, taking into account the identified goals of sustainable development at the international and national levels, as well as globalization processes in the world and their impact on the development of the world agricultural market, we have identified the system of sustainable development of agricultural producers in the conditions of their functioning in the world market, Figure 1.

Sustainable development of agricultural producers in the conditions of their functioning in the world market should include three interconnected components: economic, ecological, and social one. After all, the basis of the sustainable development of any system is a combination of economic development with a minimal negative impact on the environment and the socialization of newly created economic transformations. In general, achievement of certain goals can be achieved at the expense of innovative development of agricultural commodity producers and a balanced state social and economic policy in the field of agriculture.

The block of economic goals of the sustainable development of agricultural producers in the conditions of their functioning in the world market is quite extensive, it is determined by the peculiarity of the development of certain branches of agriculture, the location of agricultural producers, the level of their logistical support, the size of certain agricultural enterprises, the orientation to a greater extent on internal or external market and other factors. In addition, the realization of the economic goals of sustainable development directly affects the resolution of social and environmental issues in rural areas.

3. The economic component of ensuring the sustainable development of agricultural producers

In general, the basis for solving the problem of the sustainability of the development of agricultural commodity producers, including, in the conditions of their functioning in the world market, is the solving of the following tasks:

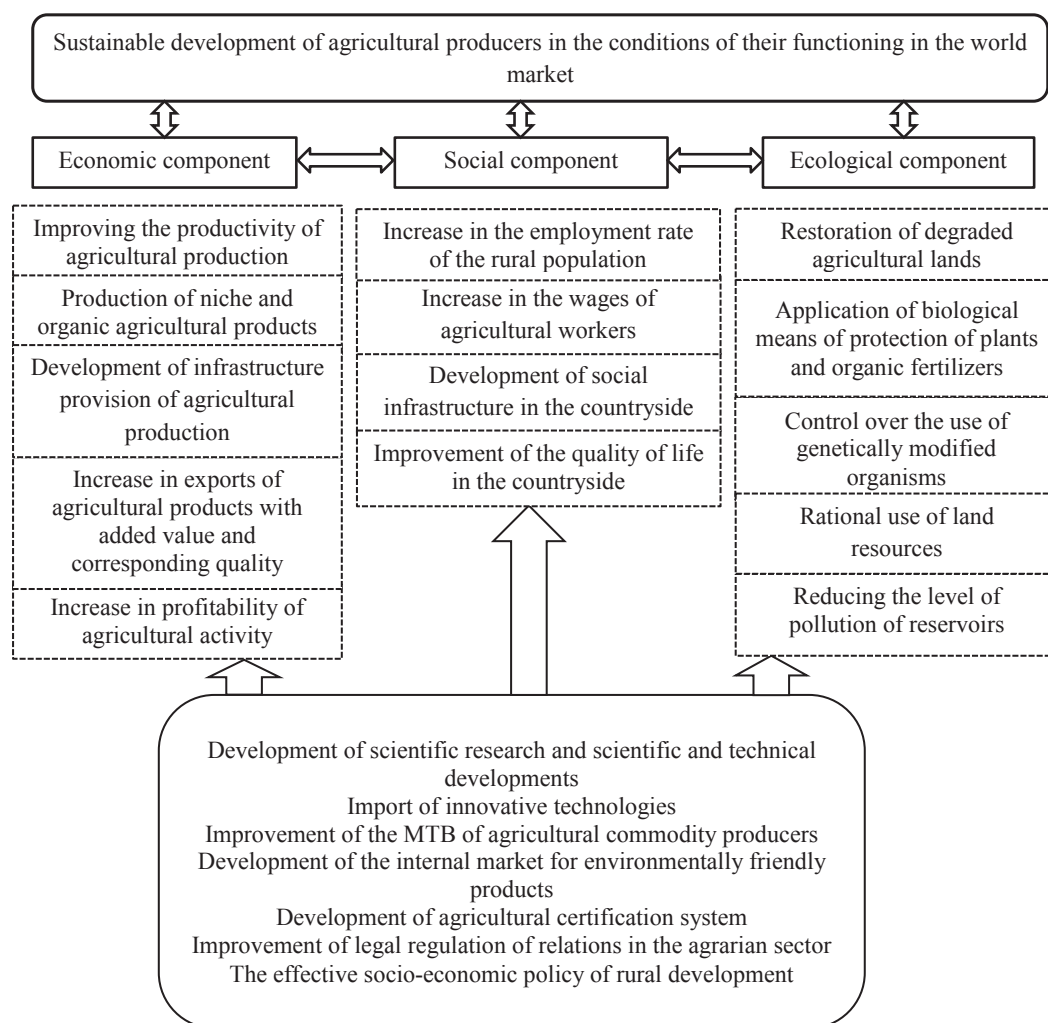


Figure 1. The system of sustainable development of agricultural producers in the conditions of their functioning in the world market

Source: the author's research

1. Improving the productivity of agricultural production. At present, in Ukraine, increasing productivity of agricultural production is achieved mainly through the use of quality seed materials, mineral fertilizers, and plant protection products. At the same time, the managerial, personnel, and technical components of productivity are often not taken into account.

In our opinion, the main components of the formation of productivity of agricultural production are not only available land resources, used seeds, fertilizers, and plant protection products. We believe that the greatest influence on the productivity of agricultural production is carried out by agronomy management of agricultural producers, the expediency of using certain agrotechnologies and their level of innovation, the presence of related systems in the production process (drying systems, cleaning of agricultural products, the possibility of delivering them with a minimum level of losses and capacity for its storage).

2. Production of niche and organic agricultural products.

Today, at agricultural enterprises of different sizes and forms of ownership, cultivating crops is predominantly subject to the conditions of the agricultural market, and economically attractive crops are grown, the realization of which makes it possible to obtain a stable profit. The production of monocultures (corn, rape, soybeans, grain crops) and saturation of field crop rotation with sunflower prevails, which leads to intensive use of nutrients from the soil harvesting complex and depletion of soils. Such a situation negatively affects not only the environment but also depletes the natural resources of the region, which in the long run may lead to a complete decline of rural areas. In such conditions, stimulation of the production of niche agricultural products at the regional level will contribute not only to solving economic and environmental problems in the activities of agricultural producers but also to improving

the social component of rural development. In addition, the production of niche products is a priority direction for the agrarian sector of Ukraine, declared in the State Strategies 3 + 5, aimed at strengthening the competitive advantages of small and medium-sized agricultural producers at the national and international levels. At the same time, it should be understood that the production of certain types of niche products should be directly proportional to the peculiarities of the regional conditions of agricultural activity and correspond to trends of development of world markets of niche types of agricultural products. In this context, in certain regions of Ukraine, it is appropriate to stimulate the production of organic agricultural products, honey, garlic, sorghum, walnuts, flax, mustard, raspberries and blackberries, beans, peas, and blueberries.

Organic farming is a sustainable form of agriculture that involves cost-effective resource management and has great potential for growth around the world. Numerous studies confirm that organic farming provides improved environmental and resource provision (land, water, etc.), protection of animals, climate, income situation for people employed in agriculture and, in general, for rural areas.

The official statistical surveys of the International Federation of Organic Agriculture Movements (IFOAM) confirm that in 2002, in Ukraine, there were registered 31 farms that received organic status, in 2017 there were already 430 certified organic farms, and the total area of certified organic agricultural land amounted to 423.5 thousand hectares.

Most Ukrainian organic farms are located in Odesa, Kherson, Kyiv, Poltava, Vinnytsia, Transcarpathian, Lviv, Ternopil, Zhytomyr regions. Ukrainian certified organic farms – of varying sizes – range from several hectares, as in most European countries, to several thousand hectares of arable land.

Studies of the Federation of the Organic Movement of Ukraine show that the modern domestic consumer market for organic products in Ukraine began to develop from the beginning of the 2000s, amounting to: 400 thousand Euros in 2006, 500 thousand Euros in 2007, 600 thousand Euros in 2008, 1.2 million Euros in 2009, 2.4 million Euros in 2010; this figure increased to 5.1 million Euros in 2011, to 7.9 million Euros in 2012, to 12.2 million Euros in 2013, to 14.5 million Euros in 2014, to 17.5 million Euros in 2015, and to 21.2 million Euros in 2016.

Due to favourable climatic conditions and fertile soils of Ukraine, local organic farming has great potential in global competition and offers additional prospects for the highly effective development of domestic agricultural producers. However, currently, Ukrainian agricultural producers predominantly produce organic raw materials for export. Development of the domestic market is still at its beginning, but it is already possible to recognize the tendency for positive development.

Spatial proximity to the EU export market and overcoming barriers to trade create an opportunity for foreign direct investment and the transfer of services and technologies. The modernization of agriculture and the improvement of working conditions associated with this will have a positive effect on the further development of the Ukrainian organic sector.

3. The development of infrastructure provision of agricultural production in the conditions of sustainable development of Ukrainian agriculture should be directed not only to increase of the production of this product but also to the creation of a comfortable social environment, a favourable psychological climate in the labour collective of the agricultural enterprise, the social motivation of labour. In addition, the production activity of agricultural producers must take into account the environmental situation in a particular region and be realized in such a way that not worsen the present state but improve it.

Currently, it is considered that enterprises producing agricultural machinery and equipment, mineral fertilizers, chemical ameliorants, seeds, and other materials for agriculture, research institutes form the production infrastructure of agriculture. At the same time, the most important are the research organizations and institutes that are developing: the latest technologies for the protection, reproduction, and enhancement of soil fertility; technical means of ecologically safe use of water resources; knowledge intensive technologies of organic crop production; resource-saving technologies of production of agricultural products, etc. In our opinion, the infrastructure support for the production of agricultural products, in addition to the above, should include the capacity for storing the produced products in a qualitative state for the longest period of time and at least educational and recreational facilities that will contribute to the improvement of the quality of labour resources of agricultural producers.

The development of infrastructure support for agricultural production at the present stage of development of our country is possible only if the efforts of the state and private sector with the international institutions are combined.

It has been established that almost all funds allocated from the public budget, provided by international donor countries, international organizations to the state or provided by international financial institutions on a commercial basis, in the context of the construction of infrastructure facilities, are directed mainly to the development of a system of elevator capacities, vegetable, and fruit storages. At the same time, in our opinion, the priority should be given to the development of research institutions that are potentially able to provide innovative agricultural development, to develop rural infrastructure, and to improve the environment. At the same time, if private enterprises receiving commercial loans themselves decide on the direction of the received

funds, then the state must develop, present, and raise funds for the outlined projects for the development of infrastructure support for agricultural production. In the case of their successful realization, domestic agricultural producers will be able to improve their competitive advantages in the world market.

4. Increase in exports of agricultural products with added value.

The question of formation of added value in agriculture is rather controversial; politicians often speculate on it, scientists and practitioners argue. So, it is quite commonly believed that the added value in agriculture is the cost of processing raw materials and bringing them to a ready-to-use product. For example, grain – raw materials, flour – a product of the added value of raw materials “grain,” bakery products – a product of the added value of raw materials “flour” etc. In this context, the data of the State Statistics Service of Ukraine should be considered. The largest share in the commodity structure of exports of agricultural products and food industry in 2017 was made up of herbal products, mainly due to supplies of grain to foreign markets – 70.54%. Fats and oils of vegetable or animal origin were exported in the amount of 4605.7 million UAH, with the basis of exports of sunflower oil – about 70%. The finished food products accounted for 15.93% of the total export value. Based on the data presented and the abovementioned approach to the definition of added value in agriculture, we can state that, in fact, Ukrainian enterprises are predominantly exporters of products with no added value.

In addition to this thought, one should pay attention to the approach of Adam Smith and his followers, including P. Samuelson. Adam Smith, in his work, “Inquiry into the Nature and Causes of the Wealth of Nations,” argued: “The cost added by the workers to the cost of materials is broken down by itself... into two parts, one of which goes to pay their wages and the other to pay the profit of their entrepreneur for the entire capital, which he advanced in the form of materials and wages.” Consequently, the added value consists of labour, profits, and taxes minus subsidies. The same added value is deducted by subtracting intermediate consumption from the total output.

According to the Public Council under the Ministry of Agrarian Policy and Food of Ukraine, the share of added value in the total output of agricultural products in 2016 amounted to 42.4%, while in general in the Ukrainian economy the same indicator was only 37.6%.

Consequently, Ukrainian enterprises mainly export agricultural products as raw materials, although they receive a higher share of added value in the production of agricultural products than in the overall economy of Ukraine. Therefore, it is partly possible to agree with the opinion that spacecrafts, rocket space complexes, and carrier rockets are the finished products for enterprises of the space industry of Ukraine, as well as

bulls, dairy raw materials, grain of wheat or sunflower seeds are finished products for farm enterprises. At the same time, we believe that the urgent issues of the present in the activities of agricultural producers are the increase in production and sales (including the external market) of processed products. At the same time, it is not necessary to mix up the degree of depth of processing of agricultural products with its added value. Indeed, even deep sub-farm processing or production of food is equated and counted (added) to agricultural production, provided that the products are produced within the limits of one economic entity from their own agricultural raw materials.

It should be noted that the direction of activity of agricultural producers in the world market is formed, including, under the influence of demand and supply of certain types of agricultural products. Global demand for grain is much higher than world demand for flour, while global demand for sunflower oil is higher than global demand for sunflower seeds. Of course, it should be kept in mind that processed products are more expensive, and the process of processing is accompanied by the creation of new jobs; social development of territories where processing takes place; increase in revenues to budgets of different levels, etc. From this, when increasing exports, it is necessary to focus on increasing the level of the so-called added value, first of all, for those types of products that have a corresponding demand on the world market, can be produced and sold by small and medium-sized agricultural enterprises (products of vegetable growing, beekeeping, livestock farming, fruit and berry farming, etc.), create conditions for the socio-economic development of rural areas and minimize (or do not) pollute the environment. All this can be realized only with the support of the state (financial, regulatory), the influence of international and Ukrainian public organizations, raising the level of consciousness of agrarian business, the efforts of local settlement district and regional councils.

Thus, in order to increase the volume of agricultural production and its exports, a general improvement of the investment climate in the state and the investment attractiveness of agricultural enterprises is necessary; well-considered real support of the state is aimed at finding additional sources of financing for existing projects on the construction of processing facilities in rural areas with the input of raw materials of local agricultural enterprises and creation of favourable conditions for the search of markets for newly created products taking into account the state of food security of the country; effective cooperation of all stakeholders (state, public and business) to implement the most promising projects for the creation of added value of agricultural products in the conditions of sustainable development of agriculture in Ukraine.

5. Increase in profitability of agricultural activity in the conditions of sustainable development is possible

due to increase in volumes of production and sales of manufactured products, diversification of agricultural activities with an orientation towards organic and niche agricultural products, reduction of the cost of production of agricultural products, restoration of parity pricing in the agro-industrial complex of Ukraine.

4. Conclusions

Sustainable development of agricultural producers in the conditions of their functioning in the world market can be achieved at the expense of: constant development of scientific research and scientific and technical developments in domestic agriculture, creation of

favourable conditions for the implementation of foreign economic activity by agricultural commodity producers, including for the import of innovative agricultural technologies; improvement of the material and technical base of agricultural producers; development of the internal market for environmentally friendly products; improvement of the system of certification of agricultural production; improvement of legal regulation of relations in the agrarian sector; realization of effective socio-economic policy of rural development. It is the effective fulfilment of the set tasks that will enable the formation of sustainable competitive advantages of agricultural producers in the world market and poses problems for further research by the author.

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REFORMATION OF THE INSTITUTIONAL ANTI-CORRUPTION SYSTEM IN THE CONTEXT OF EUROPEAN INTEGRATION TRANSFORMATION

Aleksei Fedotov¹, Maryna Voloshyna²

Abstract. Ukraine belongs to a group of countries in which political, grand, and petty corruption deeply rooted in various spheres of life and became an organic element of social relations. During 2014-2018, the fight against corruption in Ukraine was identified as one of the key priorities of the state policy. This was also noted by international organizations. The implemented reforms contributed to moving Ukraine from 144th place in 2013 to 130th place according to the Corruption Perception Index. The purpose of the article is determined as to study reforming of the institutional system of the fight against corruption in the context of European integration transformation directed to increasing transparency and openness of the state as an institute and improving the governance. Traditionally, three functional types of corruption are distinguished: political corruption, grand corruption, and petty corruption. The author presented a generalized group of indicators of measuring the efficiency of the fight against corruption, including: Group 1. Economic indicators: reduction of economic losses as a result of the elimination of specific corruption schemes and the elimination of conditions that give rise to corruption; Group 2. Indicators of the activity of the law-enforcement system: the number of persons brought to administrative and criminal responsibility for corruption violations and crimes; amounts of damages recovered; Group 3. Indicators of public acceptance of the effectiveness of counteraction to corruption: assessment of the dynamics of corruption in various dimensions by different social and professional groups. For successful application of the experience of EU countries when developing effective anti-corruption policy in Ukraine, it is necessary: firstly, determine and implement in Ukrainian legislation relevant international legal rules of state, regional, and local nature; secondly, given the successful experience of certain countries, identify a complex of most important for Ukraine factors aimed at providing effectiveness of state policy of preventing corruption, structure them based on principles of priority and the most functionality in order to create a model optimal for Ukrainian conditions; thirdly, develop and form for this model proper institutional support of regulatory character that would harmoniously combine state, regional, and local levels of public administration. The paper determines "direct" anti-corruption effects of corresponding changes in economic governance. It is obvious that direct effects can be levelled by corruption risks in related spheres. So, the delegation of certain powers and financial resources to the local level in the process of decentralization objectively restricts corruption in the relations of "centre-regions" in terms of the distribution and use of financial resources, however, without effective anti-corruption system at the local level, the anti-corruption effect of decentralization will be less than expected. In order to overcome mass violations of anti-corruption norms and rules, it is needed to implement a whole range of measures to criminalize corruption, that is, to establish criminal responsibility for corruption offenses and corruption-related offenses and create a law enforcement system capable of effectively counteracting the corruption actions that we have identified in the study.

Key words: corruption, shadow economy, anti-corruption policy, performance measurement of fight, anti-corruption measures.

JEL Classification: O17, F42, H11, D73, R10, K32

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1. Introduction

Unfortunately, Ukraine belongs to a group of countries where political, grand, and petty corruption deeply rooted in various spheres of life and became an organic element of social relations. Corruption leads to losses of state and population as a result of ineffective use of budget funds, low quality of public services, and also increases the uncertainty of the environment in which economic agents and households operate. However, assessing this phenomenon in Ukraine, an impartial researcher faces problems since international ratings primarily measure corruption only, while economic assessments of the losses from corruption and, accordingly, the benefits of overcoming it are very lacking. During 2014-2018, the fight against corruption in Ukraine was identified as one of the key priorities of the state policy. Due to a number of successful measures, certain progress in overcoming corruption was also noted by international organizations. Implemented during these years reforms contributed to moving Ukraine from 144th place in 2013 to 130th place according to the Corruption Perception Index.

Two main lines of actions that reduce the level of corruption in the country can be generalized: the narrowing of opportunities for corruption due to reforms in various sectors and the creation of an effective system of institutions for fighting corruption. The article will consider the changes made in the first direction.

The purpose of the article is determined as to study reforming of the institutional anti-corruption system in the context of European integration transformation directed to increasing transparency and openness of the state as an institute and improving the governance.

At the same time, for the analysis, a limited number of anti-corruption measures have been selected, which have already given an economic effect in those areas where corruption has traditionally been considered a visiting card of Ukraine. All opinions and views expressed in the paper belong exclusively to its authors and do not necessarily reflect the official policy or position of the Government of Ukraine or any government agency or members of the International Editorial Board. The article is based on sources and data in which the given information is reliable on the date of release (Ukraine Against Corruption, 2018).

2. The methodology of research

Corruption and fight against this phenomenon is a complex and multidimensional process. Therefore, assessments of the scale of corruption, the willingness to fight it (political will), and the effectiveness of various anti-corruption measures vary greatly. Herewith, it should be noted that all known today international ratings measure precisely perception of corruption, while the scientific economic assessments of corruption losses and, accordingly, the benefits of overcoming it are obviously rare.

Measuring the scale of corruption and an adequate assessment of the effectiveness of anti-corruption measures are a challenge for experts, politicians, and society. But without such an analysis, it is impossible to measure the degree of success of the anti-corruption strategy and to adequately adjust the content, time, and mechanisms for implementing the appropriate steps.

Overcoming corruption becomes the main prerequisite for the successful European integration processes, at the same time, it should be pointed out that adoption of laws aimed at implementing the state anti-corruption policy and required for the successful European integration processes takes place due to the pressure on the authorities and politicians on the part of civil society. A formal approach to the process of fight against corruption indicates that dominant corruption factors in Ukraine become not only factors of material-economic but also ideological, moral nature, general and legal culture. Obvious inefficiency of measures applied in relation to corruption determines the expansion of the issues of research on corruption and mechanisms of its influence in various spheres of economics, sociology, law, and public administration.

Formation of state anti-corruption policy and definition of political corruption are investigated in works by Stepanova A. (2015), Kyrylenko O. (2015), Popok A., Reshota V. (2013), Rybak A. (2011), and others. European principles of good governance and reform of the system of executive authorities in Ukraine, as well as implementation of principles of good governance as a factor of activation of economic-political development of the state, were studied by Shevchuk B. (2012), Yameletsky O. (2012), Martynyuk O. (2015), Paweł Dziekański (2017). At the same time, the study of reformation of the institutional anti-corruption system in the context of European integration transformation is relevant and still insufficiently presented in domestic scientific publications.

Traditionally, three functional types of corruption are distinguished, namely:

political corruption. It is the manipulation of political decisions, rules, procedures, and activities of institutions in the area of resource allocation and financing by politicians abusing their authorities in order to preserve and enhance their power, status and wealth, and to obtain private gain;

grand corruption. It covers actions of senior officials in order to profit at the expense of society through distorting influence on state policy and mechanisms of state functioning at the central (national) level;

petty corruption. In this case, it is about the daily misuse of power by middle and low-level officials in the process of dealing with citizens in solving their (citizens') personal problems.

We have limited ourselves to analysing measures aimed at overcoming political corruption first of all.

At the same time, we understand that the strategic goal is to create zero social tolerance for corruption at all levels.

In general, corruption and, accordingly, counteraction to this phenomenon is a complex and multidimensional process. Components of the formation of counteraction strategy in the field of political corruption are grouped in Figure 1. According to the content, all measures aimed at fighting corruption can be conditionally divided into two groups: a) detection of corrupt acts and punishment of the perpetrators, and b) elimination of the conditions for the occurrence of corruption.

The main goal of the article is determined as to study positive shifts in the system of economic governance which are aimed at eliminating conditions for the existence of political corruption and providing transparency of corresponding regulatory mechanisms as a prerequisite for the successful prevention of the appearance of corrupt acts.

We believe that in the broader sense in the system of state government, it is important not only assessments of the effectiveness of the counteraction in this area but also the ability to protect the relevant reforms from active attempts to examine existing achievements and to directly or indirectly slow down the country's anti-corruption progress.

Due to objective reasons, we did not seek to analyse all possible corruption schemes (participants, volumes, instruments) and the effectiveness of the anti-corruption system being created today. Outside of this study, many questions remain regarding the SFS and customs reform, judicial reform, gas sector and public procurement reform, as well as issues of radical

institutional changes and the definition of economic schemes for corruption mechanisms. These issues require a special analysis due to objective reasons: size and format of research. Undoubtedly, there is a problem of availability of the data necessary for the analysis and the reliability of the available information.

The need for international cooperation and application of progressive foreign experience in preventing corruption is reflected in the United Nations Convention against Corruption, which specifies that corruption is no longer a local problem and has transformed into transnational phenomenon that influences society and economies of all countries, which predetermines primary importance of international cooperation in the field of counteracting and controlling corruption (United Nations Convention against Corruption, 2003).

Active cooperation in the sphere of anti-corruption policy is carried out by European institutions. First of all, it concerns the Council of Europe. The approach of this organization to the fight against corruption has three interrelated aspects: development of pan-European norms and standards, control over their observance, as well as the provision of technical assistance to the states and regions (Letter from the Ministry of Justice, 2011).

Traditionally, the issue of preventing corruption occupies one of the prominent places in the policy of European states. It is obvious that organizational and legal forms and methods of its implementation vary since each of the states has its own specifics. For example, the fight against corruption in Germany is based on the task of destroying the material, first of all, the financial

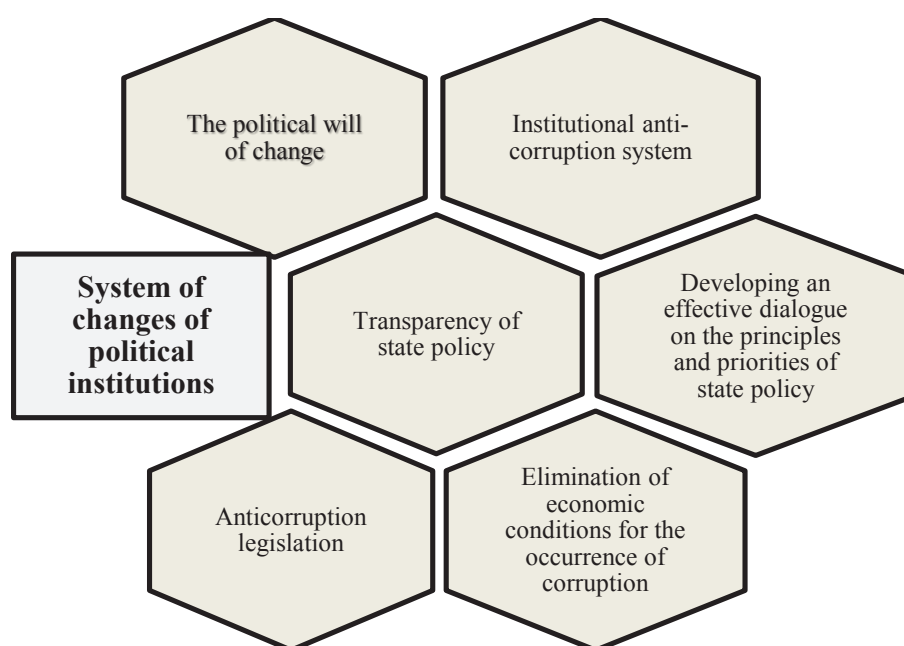


Figure 1. Components of reforming the anti-corruption system

Source: formed on the basis of Ukraine Against Corruption (2018)

base of corruption. The overall strategy of the German government in the field of prevention of corruption is to eliminate, as a result of legislative, organizational, personnel, and other measures, the misuse by civil servants of their official position. The regulatory framework is maximally improved. An effective tool is the creation of a registry of corrupt firms. Its essence lies in the fact that the company included in such a register is deprived of the right to perform any government orders and becomes the object of more attention on the part of law enforcement authorities. However, in Germany, first of all, there are attempts to end corruption in the minds of members of society (Popok, Reshota, 2013).

The development of a comprehensive policy aimed at preventing corruption in Poland began under the powerful influence of the EU. In May 2000, Vice Prime Minister of Poland L. Balcerowicz initiated the formation of a working group at the Economic Committee of the Council of Ministers, whose purpose was to prepare a report on the main sources (factors) of the spread of corruption and an action plan for its elimination. The group included ministers of key departments and representatives of government institutions, experts of the World Bank, the Institute of Public Affairs under the Anti-Corruption Program (Stefan Batory Foundation) (Korupcja a polityka antykorupcyjna, 2011). Since the adoption of the Anti-Corruption Strategy in 2002, Poland has adopted a large number of laws and regulations, optimized administrative structures, which not only increased their effectiveness but also became a mechanism for preventing corruption (the simplicity of many procedures actually deprived officials of the tools that could be used to claim bribes). At the same time, the philosophy of functioning of administrative structures is changed towards increasing responsibility for providing public services. Policy of preventing and fighting corruption in Poland implements a wide range of disciplinary and criminal measures (strengthening criminal and administrative legislation in the fight against corruption; establishment of specialized institutions; creation of special mechanisms of external and internal control over activities within the public administration authorities; effective judicial system), preventive measures (mechanism that simplify various procedures where subjects are, on the one hand, a citizen, on the other – public bodies; elimination of gaps in legislation that allowed for corruption abuses; clearly defined codes of conduct of public officials and concrete steps of action in certain situations; provision of access to public information and e-governance; education of the

population and officials; support of non-governmental organizations, etc.) (Paweł Dziekański, 2017; Rybak, 2011).

In Central Europe, considerable attention is being paid to the adoption of detailed anti-corruption laws aimed at criminalizing the full range of acts related to bribery. Most countries have also introduced anti-corruption programs at the national level. The answer to the fight against corruption in many countries was the increase in the number of anti-corruption legislative acts. In particular, the fight against corruption as one of the main priorities of the Government of the Czech Republic is based on an appropriate strategy. It is aimed at reducing the level of corruption, gradual implementation of measures on the basis of the balance of prevention and suppression of corruption and transparency of this process. When developing the strategy, projects of Transparency in Government Procurement Platform were used (Rybak, 2011).

3. Results and discussion

Corruption in Ukraine – not just socio-economic phenomenon that is present in varying degrees today in many countries of the world. It is a system of relations that penetrated all spheres of society's life. Before revolutionary events in 2014, despite loud political statements and some anti-corruption decisions, corruption only intensified, as reflected in relevant international rankings (Table 1).

Data for calculations are obtained from the following sources: World Economic Forum; Global Insight Country Risk Ratings; Bertelsmann Foundation Transformation Index; IMD World Competitiveness Center Yearbook; World Justice Project Rule of Law Index Expert Survey; Political Risk Services International Country Risk Guide; Varieties of Democracy (V-Dem); Economist Intelligence Unit Country Risk Service; Freedom House Nations in Transit (Ukraine Against Corruption, 2018).

According to data given in Table 1, on the eve of the Revolution of Dignity, Ukraine was perceived as one of the most corrupt countries in the world, occupying 144th place (the higher the score in points and, consequently, the smaller the place of the country, the less corrupt it is considered and vice versa) by this indicator in the world. A similar situation is observed in relation to other indicators, on the basis of which the Corruption Perceptions Index is calculated.

Table 1

The Corruption Perceptions Index by Transparency International and data sources to calculate it, 2012-2017

Year	2012	2013	2014	2015	2016	2017
Place in rating	144-	144+	142+	130+	131-	130+
Corruption Perceptions Index: general score (conditional points)	26-3	25-1	26+1	27+1	29+1	30+1

Source: formed on the basis: International Monetary Fund (2017). Retrieved from: <https://www.transparency.org/research/cpi/overview>

Table 2

The level of the shadow economy in Ukraine to GDP

Year	The level of shadow economy, % to Ukraine's official GDP	Change in the volume of Ukraine's real GDP, % to the respective period of the previous year
2010	38	4,1
2011	34	5,5
2012	34	0,2
2013	35	0,0
2014	43	-6,6
2015	40	-9,8
2016	35	2,4
2017	33	2,3

Source: formed on the basis of International Monetary Fund (2017). Calculations of the MEDT of Ukraine (2010-2017).

Retrieved from: <http://www.me.gov.ua/Documents/List?lang=uk-UA&id=e384c5a7-6533-4ab6-b56f-50e5243eb15a&tas=TendentsiiTinovoiEkonomiki>

In economic terms, corruption in Ukraine has become a serious obstacle to its economic development. Without its elimination, Ukraine will simply not be able to overcome the historical lag behind developed countries and regions of the world. If Ukraine cannot reduce corruption, GDP per capita in 2040 will be only 30% of the same indicator in the EU EC (Ukraine Against Corruption, 2018).

If the level of corruption in Ukraine will reduce to the highest corruption level among EU member states, Ukrainian GDP per capita will be 40% of the EU average indicator. If the level of corruption in Ukraine will be the same as the EU average, GDP per capita in 2040 will exceed 50% of the EU average, and this gap will be reduced rapidly in the future. Ukraine is traditionally characterized by a high level of shadow economy (Table 2). In 2014, the level of shadow economy was 43% in relation to official GDP (Calculations of the Ukrainian Ministry of Finance, 2010-2017).

It is clear that, under equal conditions, the shadow economy is both a source and a result of corruption. Although the size of the shadow economy is gradually diminishing since 2015, its level remains large, with all the relevant political and economic consequences and corrupt content. At the same time, it should be remembered that the high level of the shadow economy is also explained by the fact that the shadow economy itself is one of the business strategies that allows it to mitigate the impact of the economic crisis (and therefore, naturally, its level has increased during the crisis).

It should be noted separately that Ukraine traditionally had a high level of tolerance of society to petty corruption. This, in particular, was reflected in the widespread belief that the government simply does not work without corruption. For the sake of justice, we would point out that such an opinion had some support among experts dealing with economic development. An assessment of the effectiveness of measures aimed at overcoming corruption is a rather complicated problem. In order to make an assessment, we based our study on the approach that can be described as follows:

1. It is impossible to absolutely accurately determine the real volume of corruption (and, therefore, it is impossible to accurately determine the economic losses of society) since any assessment of this phenomenon depends on the methodology and the initial assumptions of the analysis. This is also true for the assessment of the economic effect of anti-corruption measures. Under such conditions when discussing the scale of the relevant phenomena, one way or another there is the question of their underestimation or overestimation, moreover, the affirmation of the correctness or incorrectness of such assessments is mostly subjective.

2. In technical terms, the effectiveness of the fight against corruption can be assessed using several indicators, each of which has its own specific scope of application, summarized indicators are presented in Figure 2.

It is obvious that these indicators are interrelated; however, at the same time, each group has its own scope of application. Note that traditionally in the discussions on the issues of anti-corruption policy, their participants operate precisely with the indicators of the second and third groups, or they contrast indicators of these groups against indicators of the first group. In our opinion, this does not allow adequately assessing the state of affairs in the field of fighting corruption.

3. In one form or another, corruption is present in many spheres of life in Ukraine. Of course, without a detailed "sectoral" analysis of corruption and an objective assessment of the effectiveness of the relevant anti-corruption measures in such spheres as education, medicine, healthcare, military procurement, etc., it is difficult to talk about the real pace and extent of anticorruption progress of the country. Herewith, it should be considered that society is extremely sensitive to the processes taking place in these areas, which objectively complicates discussion on the efficiency/inefficiency of the relevant anti-corruption measures.

Undoubtedly, the solution to these issues is formed by a complex multi-faceted mechanism, within this work we propose to consider the following classification of anti-corruption measures, which is presented in Table 3.

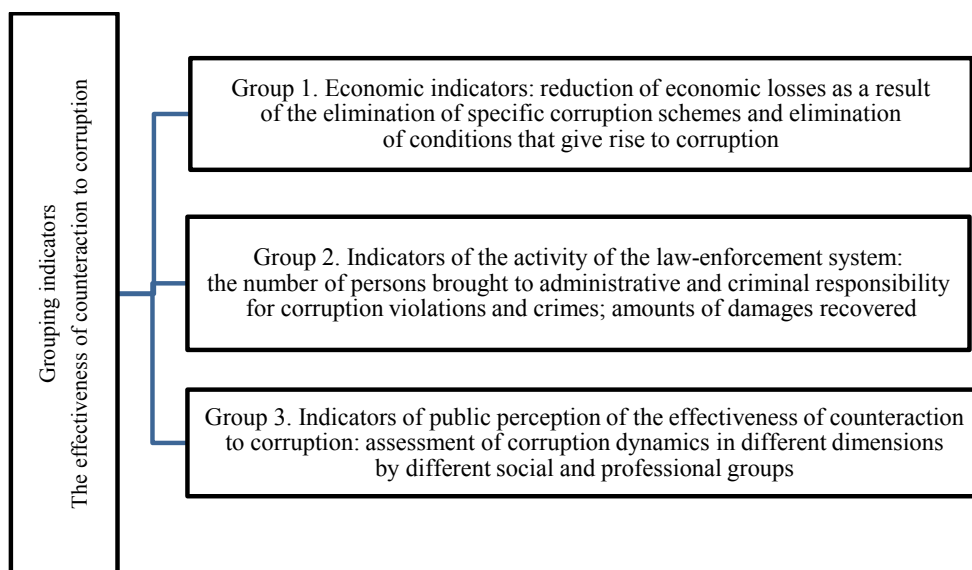


Figure 2. Summarized group of indicators to measure the effectiveness of the fight against corruption

Source: summarized by the authors based on: Ukraine Against Corruption (2018)

In general, it should be noted that the purpose of all these measures is to build a system of management of the relevant spheres on the basis of economic expediency and transparency and ensure their functioning in full compliance with the public interest in the strict sense of the term.

The formation of the national legal framework for fighting corruption is based on the relevant international anti-corruption conventions, other international legal documents containing clear internationally accepted definitions, which acts should be considered corrupt offenses, which entities should be responsible for them, which sanctions and other criminal measures (such as special confiscation and special measures for legal entities) should be established, etc.

Confirming its European integration aspirations, over the last decade Ukraine has ratified the Criminal Law Convention on Corruption of the Council of Europe as of January 27, 1999 (Law № 252-V as of 18.10.2006), the Additional Protocol to this Convention dated May 15, 2003 (Law № 253-V as of 18.10.2006), the Civil Law Convention on Corruption of the Council of Europe as of November 4, 1999 (Law № 2476-IV as of 16.03.2005), the United Nations Convention against Corruption as of December 11, 2003 (Law № 251-V as of 18.10.2006), the Council of Europe Convention on Laundering, Search, Seizure and Confiscation of the Proceeds from Crime and on the Financing of Terrorism (Law № 2698-VI as of 17.11.2010), the United Nations Convention against Transnational Organized Crime as of November 15, 2000 (Law № 1433-IV as of 04.02.2004), and the Council of Europe Convention on the Manipulation of Sports Competitions as of September 18, 2014 (Law № 1752-VIII as of 16.11.2016). By ratifying the Council of

Europe Civil Law Convention on Corruption, Ukraine has joined the Group of States against Corruption (GRECO).

On the basis of anti-corruption standards determined in these and other international documents, numerous laws were adopted:

- a) of general nature on responsibility for corruption offenses and offenses related to corruption: "On the Principles of State Anti-Corruption Policy in Ukraine (the Anti-Corruption Strategy) for 2014–2017", "On Corruption Prevention", "On Purification of Government", separate provisions of Criminal, Criminal Procedure, Civil, Civil Procedure Codes of Ukraine, Code of Ukraine on Administrative Offences, and Code of Administrative Procedure of Ukraine;
- b) on the activities of specialized anti-corruption bodies: "On the National Anti-Corruption Bureau of Ukraine", "On the Prosecutor's Office", "On the National Police", "On the State Bureau of Investigation", "On the Security Service of Ukraine", "On Operational Search Activities", "On Organization-Legal Bases of Fight Against Organized Crime";
- c) on ethical rules, anti-corruption restrictions and prohibitions for some officials, and on political corruption prevention: "On Civil Service", "On Judicial System and Status of Judges", "On Political Parties in Ukraine", "On Election of the President of Ukraine", "On Elections of People's Deputies of Ukraine", separate provisions of the Labour Code of Ukraine, etc.;
- d) on corruption prevention in the economy and sports: "On Public Procurement", "On Economic Competition Protection", separate provisions of the Commercial and Commercial Procedure Codes of Ukraine, "On Prevention of the Impact of Corruption Offences on the Outcomes of Sports Competition" and others;

Table 3

Anticorruption measures: key characteristics and interconnections

The purpose of anti-corruption measures	Measure application procedure	Anticorruption effect
Creation of a full-fledged gas market	Aligning gas prices for different categories of consumers. Termination of joint activity agreements. Revision of contracts for gas supplies from Russia. Alternative channels of gas supply to Ukraine. Reform of NJSC Naftogaz's corporate governance.	Reducing opportunities for price arbitrage. Depolitization of gas relations with Russia. Reducing opportunities for political corruption, including by eliminating the intermediary (RosUkrEnergo). Minimizing the opportunities to obtain corrupt rents due to the presence of a monopoly supplier. Strengthening the company's resilience to external political influences, which ultimately lead to the appearance of various corruption schemes.
Fight against tax pits and conversion platforms	Introduction of the system of electronic administration of VAT. Implementation of the risk monitoring system in the VAT administration system. Automatic refund of VAT	Unshadowing financial flows and minimizing a scheme tax credit
Creating a transparent, open, and competitive public procurement market	Implementation of ProZorro's public procurement system. Creating a system for monitoring public procurement by the State Audit Service of Ukraine. Creation of a special monitoring portal Dozorro. Purchase of medicines by IO.	Ensuring direct open competition between suppliers. Identification of risks of abuses in public procurement and their minimization at all stages of the procurement process. Public oversight of public procurement by all stakeholders.
The opening of state registers and other data related to public administration and ensuring equal access to it for all parties concerned	Determination of data sets to be made public. Creation of the Unified State Open Data Portal and relevant specialized open data portals. Creation of the Unified State Register of Declarations of Persons Authorized to Perform State or Local Government Functions.	Minimizing the conditions for manipulating and abusing relevant data. Expanding the possibilities of public control over the activity of the authorities. Ensuring equal access to relevant data for all stakeholders. Prevention of abuse by officials.
Eliminating excessive administrative control of entrepreneurial activity by simplifying the relevant procedures	Deregulation. Provision of administrative services in electronic format. Simplifying the registration of medicines of foreign origin.	Reducing regulatory costs for business. Automatic provision of administrative services without the "mediation" of the authorized representative of the state. Shortening the procedure for bringing foreign drugs to the Ukrainian market.
Prevention of political interference and corruption, delimitation of regulator and owner functions, the introduction of internationally recognized corporate governance standards	Corporate governance reform	Reduction of intra-corporative corruption space. Strengthening the company's resilience to external political influences, which ultimately lead to the appearance of various corruption schemes.
Clearing the banking sector from institutions that are actually an instrument for implementing various schemes of abuse by their owners.	Introduction of identification of ultimate beneficiaries. Resolving the issue of lending to related parties.	Transparency of the ownership structure of banks as a factor of increasing the efficiency of banking supervision. Prevention of the appearance of various schemes of abuse by the owners of banks.

Source: formed based on *Ukraine Against Corruption* (2018); *Calculations of the Ukrainian Ministry of Finance* (2010-2017); *International Monetary Fund* (2017)

e) on access to information: some provisions in the Civil, Commercial, Budget, and Land Codes of Ukraine, laws "On the National Agency of Ukraine on Detection, Search and Management of Assets Obtained through Corruption and Other Crimes", "On the State Registration of Legal Entities, Sole Traders and Public and Civil Organizations", "On State Registration of Property Rights to Real Estate and their Encumbrances", "On Road Traffic", "On the State Land Cadastre", "On Television and Radio Broadcasting", "On the Transparent Use of Public Funds", "On Information", "On Access to Public Information", and "On Access to Court Decisions" etc.

Based on the above-listed laws, dozens of acts of secondary legislation were adopted by the Cabinet of Ministers of Ukraine, National Agency on Corruption Prevention, Ministry of Justice of Ukraine and others. All this enables us to state that, in general, a legislative framework for corruption prevention has been created in Ukraine. Yet, in spite of the fact that many laws were passed, 35% of 200 anti-corruption measures, which, according to the State Program for Anticorruption Strategy Implementation were supposed to be implemented by the end of 2017, have not been implemented. There is no Anticorruption Strategy or

its State Implementation Program for 2018 and beyond. Also not passed are many important anti-corruption laws, which could have helped the further recovery of Ukraine's economy, finances, social protection systems etc. These include laws on transparency with respect to allocation of budget expenditures and usage of natural resources, administrative procedures, lobbying (Draft Law "On Ensuring Transparency and Legality of Communication with the Authorities", 2017), integrity checks, protection of whistle-blowers, establishment of the office of Business Ombudsman (The Draft Law "On the Establishment of a Business Ombudsman", 2016) etc.

4. Conclusions

For successful application of the experience of EU countries when developing effective anti-corruption policy in Ukraine, it is necessary: firstly, determine and implement in Ukrainian legislation relevant international legal rules of state, regional, and local nature; secondly, given the successful experience of certain countries, identify a complex of most important for Ukraine factors aimed at providing effectiveness of state policy of preventing corruption, structure them based on principles of priority and the most functionality in order to create a model optimal for Ukrainian conditions; thirdly, develop and form for this model proper institutional support of regulatory character that would harmoniously combine state, regional, and local levels of public administration.

The paper determines "direct" anti-corruption effects of corresponding changes in economic governance.

It is obvious that direct effects can be levelled by corruption risks in related spheres. So, the delegation of certain powers and financial resources to the local level in the process of decentralization objectively restricts corruption space in the "centre-regions" relations in terms of the distribution and use of financial resources, however, without effective anti-corruption system at the local level, the anti-corruption effect of decentralization will be less than expected.

The system of corruption prevention includes rules of anti-corruption behaviour general for all subjects under the anti-corruption legislation and special ones – for separate groups of such subjects (deputies, public servants, judges, workers of law enforcement authorities, heads of state enterprises and so on) or separate spheres, and also means of control, monitoring, and other means for ensuring compliance with the specified rules and provides for the possibility to change them if indicated by corresponding indicators.

In order to overcome mass violations of anti-corruption norms and rules, it is needed to implement a whole range of measures to criminalize corruption, that is, to establish criminal responsibility for corruption offenses and corruption-related offenses and create a law enforcement system capable of effectively counteracting the corruption actions that we have identified in the study.

As further research directions, we consider appropriate to investigate in more detail some spheres specified by us as strategically important directions of reform for Ukraine.

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DEVELOPMENT OF APPROACHES TO PERSONNEL MANAGEMENT BEFORE THE PHASE OF THE MERGING PROCESS OF ENTERPRISES

Alla Cherep¹, Valentina Helman², Andrii Lynenko³

Abstract. *Purpose.* Modern business is increasingly focusing on alternative options for integration among corporate growth stimulation measures, in particular, through the formation of new strategic alliances, collaboration with enterprises and start-ups, as well as through mergers or acquisitions. That is why the research is aimed at solving problems of effective management of personnel in the process of merger of enterprises, in particular, in the machine building industry by merging, takeover or otherwise integrating business, as well as at developing modern approaches to personnel management in business mergers. HR systems should be adapted to the specific conditions of the merger or takeover of business structures, taking into account the relevant phases of the process of enterprise integration. *Methodology.* The methodological basis of the study consist of general scientific methods of analysis and synthesis, comparative study of the economic processes in the management of personnel in the conditions of mergers and takeovers of business structures. The empirical method is used to describe the problem of taking into consideration the management of particular features of individual phases of the process of enterprise integration. This monographic study of a defined problem has given an opportunity to obtain results of practical significance and scientific value. *Results.* The necessity of taking into account the specifics of the individual phases of the merger of enterprises in the management of integrated business personnel is substantiated. It has been obtained the further development of HR-tools, HR-methods, and HR-practices, the use of which during the business mergers will help to address the shortage of key skills and improve the efficiency of the integrated business. *Practical implications.* Applied guidance on human resources management can be successfully implemented in the machine-building enterprises of Ukraine in the process of their merger with the aim of creating a more efficient integrated entity. The results of the study provide an opportunity to clearly outline the peculiarities of the phases of the process of business combining, which necessitate the use of appropriate HR-tools, HR-methods, and HR-practices for the integrated business. *Originality.* The novelty of the results is the conceptual scheme of the personnel decision-making in the conditions of organizational changes in the combination of machine-building enterprises taking into account the three-phase process of their integration. The article focuses on the crucial importance of using HR-practices in accordance with the phases of the merger process to ensure the success of mergers and takeovers, resulting in new business combinations. The article explores HR-practices in the field of mergers and takeovers, which create new business combinations. The expediency of using HR-tools and HR-methods is proved for domestic enterprises operating in the field of machine-building, which are interested parties of integration processes. The developed human resources recommendations make it possible to increase the organizational efficiency of functioning of newly formed and already existing associations of machine-building enterprises.

Key words: HR-tools, HR-methods, HR-practices, mergers and takeovers, business integration, personnel management, business combinations.

JEL Classification: G34, M12, M21

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1. Introduction

Today, the practice of concluding merger or takeover agreements has extended to Ukrainian business as well. The most widespread sense of mergers/takeovers is one of the additional ways of consolidating business, expanding enterprise activities and spheres of influence in a single market.

The negative aspects include the fact that the M&T process is quite lengthy and may take years; besides, large companies are finding it more difficult to achieve a quick reaction to the variability of the environment. Taking into account “external variables” and “internal variables” is important in such processes and they determine the success of integration. Importance is given to the role of human resources in the processes of mergers and takeovers, an adaptation of personnel management systems to specific conditions of mergers or takeovers of business structures.

The main role of HRM in the process of merging companies is to mitigate the possible negative impact of processes of changing ownership or form of management on organizational effectiveness by creating a mechanism for reducing ambiguity that occurs in the process of organizational change. This provides a better understanding of the integration of enterprises by employees and their managerial staff and increases the motivation to the successful integration of enterprises through mergers or takeovers (Correia, Cunha, Scholten, 2013).

The studies of theoretical, methodological, and practical issues related to the role of HRM in M&Ts, how HRM centrality affects the relation between ownership change and performance, are explored in the work of domestic and foreign scientists, including P. M. Bal, P. Christman, M. Cording, M. F. Correia, R. C. Cunha, L. Dorenbosch, S. Jackson, D. R. King, C. Lakshman, C. K. Love, M. Scholten, R. Schuler, O. V. Stalinska, M. L. Tsurkan, and others.

After analysing different approaches of scientists to determining the specifics of human resource management in the context of organizational change, one is clear that today there is a need for in-depth research and further development of the use of HR-practices, HR-tools, and HR-methods for enterprises operating in the field of machine-building and which are stakeholders of the integration processes.

2. Causes of inadequate attention to personnel management in the process and after the merger of enterprises

Mergers and takeovers of entrepreneurial structures are quite popular forms of organizational change in the business. However, such situations of mergers and takeovers are accompanied by radical changes, which provoke problems for the established work of enterprises that are united in the organizational sense, creating

powerful internal turbulence (Cording, Christman, King, 2008; Lakshman, 2011).

Integration processes are widespread today in the business environment around the world, and the machine-building is no exception. However, in Ukraine, the tendency towards the merger of enterprises is not so tangible; however, it still has a significant impact on the development of the economy as a whole. Thus, according to the results of the annual survey of executives of the largest companies in the world conducted by PwC analysts in 2018, in Ukraine 30% of the polled CEO (49% in the world) chose the creation of the new strategic unions among the measures to stimulate corporate growth over the next 12 months, the collaboration with other enterprises and startups was chosen by 18% (in the world – 33%), and mergers and takeovers were selected by 14% (in the world – 42%). The analysed data are grouped in Table 1.

Table 1

The results of the survey of CEO in the world and Ukraine on measures to stimulate corporate growth through integration, percentage of respondents

Measures to stimulate corporate growth	World	Ukraine
New strategic alliances	49	30
Collaboration with businesses and startups	33	18
Mergers and acquisitions	42	14

The more clearly indicated tendencies for the integration of enterprises are represented in Figure 1.

Consequently, a significant proportion of the surveyed CEO of large Ukrainian enterprises envisages participation in the integration processes during the next year, therefore, attention to the problems of effective management of personnel during organizational changes caused by mergers, takeovers or other associations of enterprises is justified by the objective need to ensure the successful integration of business.

Mergers and takeovers in business can be successful but they can also lead to major failures. Mergers and takeovers of enterprises that are conducted quickly without proper organizational support and appropriate training of staff are generally doomed to failure. Some problems in the merger of enterprises can be explained by financial and market factors, but a significant number of failures is due to ignoring questions related to human resources management in the process of integration and after the formation of a business association. Numerous studies confirm the need for systematic consideration of various problems and activities in the area of human resources associated with mergers and takeovers by participants in business associations. In fact, recently the research in sectors has shown that 50–70% of all mergers, takeovers, and other corporate transformations do not reach the desired level of success, primarily due to human resources problems of integrated business formations (Tsurkan, 2017).

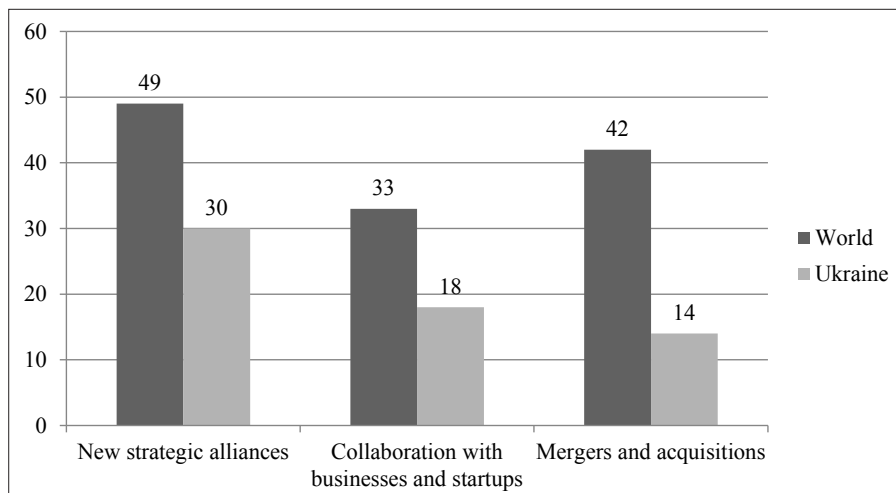


Figure 1. Trends in the business integration in the world and in Ukraine according to the survey results of the CEO of large enterprises, percentage of respondents

There are many reasons that cause some disregard for human resources management in the process of merging enterprises. The main reasons for this are:

- lack of awareness that human resources have a decisive influence on the success of the processes of merging enterprises, in particular, of the machine-building industry;
- lack of universal models or tools for managing human resources in mergers or takeovers;
- the emphasis in mergers and takeovers, as a rule, shifts to other problems, rather than human resources, their adaptation to change and motivation to work effectively under new conditions;
- insufficient study of the peculiarities of personnel management in the process and after the merger of enterprises, in particular in Ukraine.

Experts point out that in the merger or integration of enterprises in any other way, human resources professionals must participate before, during, and after the merger of enterprises into a new integrated business structure. HR-systems should be adapted to the specific conditions of the merger or takeover of business structures. Research shows that a merger of enterprises, whose HR-practices are fully integrated, goes more smoothly and employees remain content and motivated at any transition (Schuler, Jackson, 2001).

3. The need to take into account the three phases of mergers or takeovers in personnel management

To improve the efficiency of M&T processes, the top management of enterprises should use personnel methods that develop integration opportunities, in particular, after the merger of machine-building enterprises.

Taking into account the experience of enterprises that take part in mergers and takeovers, a three-phase

model of enterprise merger can be distinguished, which includes the following phases: the first – before the merger; the second – the merger that is the integration of partners; the third phase – after the merger, which involves the development of a new organizational structure. Typically, these three phases cover a wider range of business functions, namely business strategy, finances, marketing, sales, IT and production, but according to the merger or takeover phase, there are some questions that reflect problems that are most closely related to human management resources in the integration process (Bal, Dorenbosch, 2015).

According to the information above, it is important to take into account the peculiarities of the phases of mergers or takeovers, as well as the specifics of the management of human resources in the process of making personnel decisions in the context of organizational changes. The conceptual scheme of personnel decisions in the conditions of organizational changes during the merger of machine-building enterprises is represented in Figure 2.

Thus, the first stage is a preliminary merger that involves the planning of a merger or takeover process. At the first stage, there are many problems with the staff, as well as other related issues. For example, one of the reasons for a merger is to try to get the key advantage of another company, which is often manifested in talented employees who will be very useful in the future for the newly established integrated business structure.

The problem with the personnel faced by enterprises involved in mergers and takeovers in the first phase of planning organizational changes can be as follows:

- the formation of a team on personnel or the definition of a leader in the process of merger or takeover;
- planning and coordination of the process of merger or takeover of enterprises in the field of machine-building;

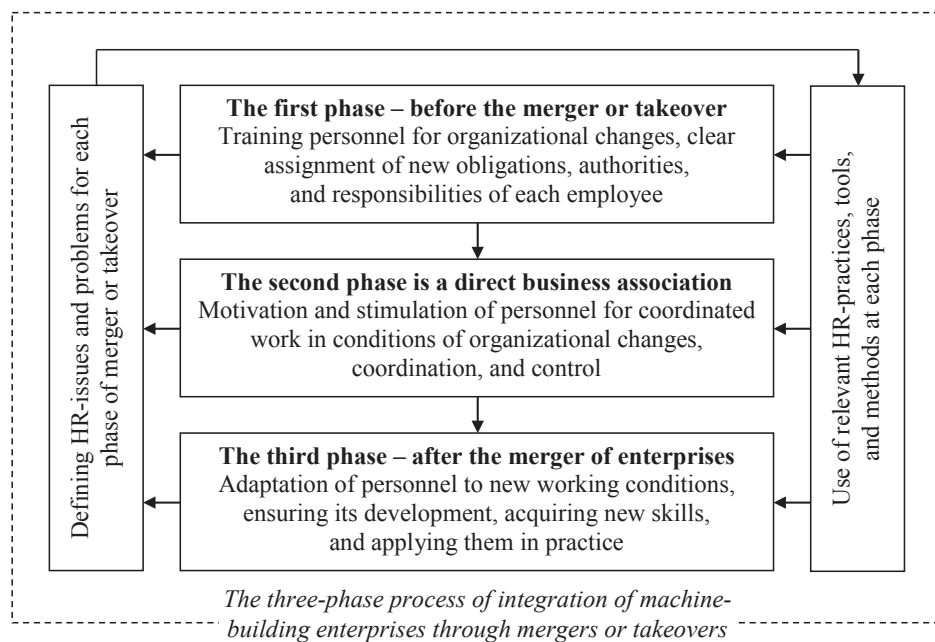


Figure 2. Conceptual scheme of personnel decision-making in the conditions of organizational changes in the merger of machine-building enterprises

– the need for a comprehensive study of other processes for the integration of business.

Integration of the business partners is the second and probably the most important phase, which includes various activities of participating companies. In general, integration is a process, due to which two companies combine after the announcement of mergers or takeovers. It is desirable at this stage to choose an integration manager, which should focus only on a specific process of merger and takeover. The following problems with personnel issues that emerge at the enterprises at the integration phase of the partners are:

- problems of designing effective teams;
- creation of a new organizational structure for the management of integrated business formation;
- problems with retaining the key employees of the merged enterprises;
- the motivation of workers in the new conditions of their work;
- effective management of change processes;
- the need for well-considered personnel policy.

One of the most important tasks for the personnel department or personnel manager is to solve who will stay and who will go. The important targets of the personnel service include: a selection of candidates, the creation of new teams, emphasis on communication, the creation of a new corporate culture and organizational management structure.

The last stage – the third one is characterized by the creation of a new integrated business entity. In the process of creating new combinations, there are problems of adjustment, working out all functions and “fine” settings. The following points can be attributed to

staff problems that arise at the last phase of mergers or takeovers:

- strengthening the leadership and staffing of the merged enterprise;
- assessment of the new corporate culture;
- an analysis of new development strategies and security structures etc. (Bal, Dorenbosch, 2015).

Among the important tasks faced by the personnel service at this phase of the association of machine-building enterprises, there are as follows: designing and creating a new structure; reconciliation of two new cultures with each other; mandatory consideration of the interests of key stakeholders in business integration.

4. Possibilities of solving problems of personnel management in the merger of enterprises

Analysing the potential threats to the growth prospects of enterprises, according to a survey of their CEO, conducted by researchers at PwC (2018), one can be stated that the problem of the shortage of key skills specialists in Ukraine ranked second place by its importance after social instability. Problems with the lack of qualified specialists, their attraction, keeping in the company, and effective management of personnel, in particular, in the process of merger or takeover, are also very topical for top management of enterprises in Central and Eastern Europe (Figure 3).

Problems of providing integrated business with qualified specialists with key skills can be successfully solved if machine-building enterprises – members of the association will implement modern HR-tools and

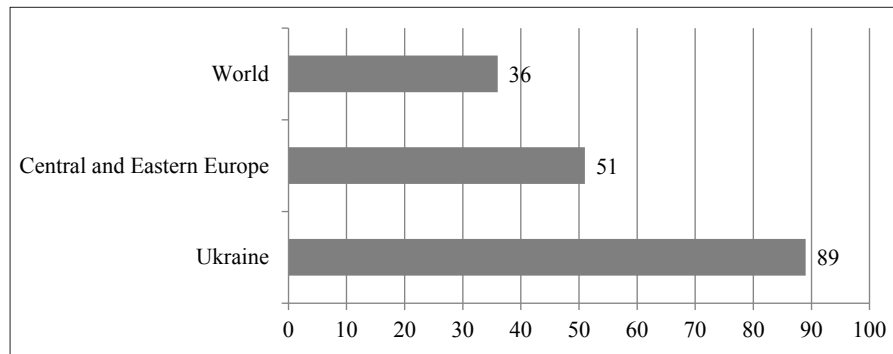


Figure 3. Percentage of CEO interviewed in 2018 who consider the lack of key skills to threaten the prospects for their business growth

methods of personnel management, with consideration of the three phases of mergers or takeovers that have already been characterized.

In addition, if the association of machine-building enterprises takes place at the level of international cooperation, the following features of the human resources management of a transnational corporation (Stalinska, 2018) should be taken into account:

- the cosmopolitan nature of employees, the existence of workers, who are mostly members of a high-level elite who are constantly moving from one country to another;
- the existence of significant differences in the cultural background of workers;
- the existence of a difference in remuneration and other privileges between foreign and local staff;
- widespread use of IT-technologies for maintaining communication with the personnel of the integrated business-structure of the international level;
- the need for an effective strategy of convergence and harmonized management of the various functions of staff across borders.

Analysis of the best HR-practices in companies proves the effectiveness of informing employees ahead of time about planned future changes. The top management should have an initial plan, which specifies the timing for employees to be informed about organizational changes. Such measures make it possible to minimize worries and circulation of rumours by workers, as well as ensure that staff is focused on their job functions (Love, 2000).

Particular attention should be paid to retaining the best employees at work. Talented employees play a key role in successful restructuring but they are often one of the first freed because of the inexplicability of future prospects in the enterprise. At the same time, in order to maintain the moral standing of employees, decision-making by management should be impartial and consistent for all employees, excluding particular attitudes towards some of them. Creating the conditions of justice is to distribute rewards and punish those who deserve them. Even in times of change, it's important to maintain an appropriate level of corporate culture.

5. Conclusions

Personnel aspects of mergers and takeovers may be offset by legal and financial implications but the success of such a process, as a rule, depends on staff, sustained support for business expansion, in particular, HR-management. Employees should be seen as a source of growth, sustainability or success.

The novelty of the results of the conducted research is the conceptual scheme of the personnel decision-making in the conditions of organizational changes in the combination of machine-building enterprises taking into account the three-phase process of their integration, in particular, each phase such as “before merger or takeover,” directly “during the business combination” and “after the merger of enterprises” has features of management of human resources. The first phase involves training personnel for organizational changes, a clear division of new authorities, powers, and responsibilities of each employee. The second phase focuses on motivating and stimulating staff to work together in conditions of organizational change, coordination, and control. The third phase should adapt the staff to the new conditions of work, to ensure its development, acquisition of new skills, and their application in practice.

Besides the application of HR-practices (e.g. a plan for informing employees about the key moments and timing of organizational changes, keeping the best employees), HR-tools (such as benchmarking, planning, a balanced HR-system), and HR-management techniques in the process of consolidation of machine-building companies can increase the success of the integration of participating companies, as well as improve the indicators of organizational efficiency of the newly created business structure accordingly.

Effective governance is key to merge or takeover and identify a new culture. Success in any association is defined by financial, technological, and personnel aspects. Today HR-function becomes a strategic player in the business.

Further research will focus on identifying the characteristics of personnel management depending on the forms of enterprise mergers, for example, the creation of a cluster or strategic alliance of enterprises, or the formation of a consortium on a temporary

basis, as well as the development of methodological approaches to calculating the cost-effectiveness of the application of modern methods and techniques of personnel management in integrated business structures.

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WORLD EXPERIENCE IN FINANCING INNOVATIVE SMALL BUSINESSES

Borys Shuba¹, Artur Sotskyi²

Abstract. *The aim* of the article is to study and generalize world experience in financing innovative small businesses to determine the areas of improvement of financing domestic small and medium innovative enterprises within the framework of state innovative policy. *The subject of the study* is the world experience in financing innovative small businesses. *Methodology.* The study is based on the comparative analysis of the systems of financing innovative small businesses in Ukraine and foreign countries. The analysis of specificities of financing innovative small businesses in Germany, the United States, the United Kingdom, China, Japan, Spain, Belgium, and in some other countries enables to determine the advantages and disadvantages of different systems of financing innovations in small businesses. Comparative legal study of certain provisions of Ukrainian legislation enables to determine the potentials and application limits of positive foreign experience in the specified sphere. *The results of the study* revealed that the world economy has accumulated significant experience in the formation and development of a financial support system for innovation, which includes various levers to intensify intellectual creativity. The maximum effect from their use would be ensured by the systematic consideration of all financial instruments, integration with elements of other subsystems of the national innovation system. *Practical implications.* The experience of developed economies and the analysis of the current state of financing innovation activity in Ukraine suggest that to create a developed layer of industrial and innovative small businesses, which will become the main consumer and producer of innovations, Ukraine should apply the entire complex of organizational, regulatory, financial, and other measures. While the whole complex of issues related to the development of innovation in Ukraine is of great importance, the problem of forming an active demand for innovation should be put into the first place. *Relevance/originality.* The analysis of the global experience of financing innovative small businesses is the basis for developing the most promising areas for the improvement of domestic legislation in this sphere.

Key words: small businesses, innovations, financing for innovation, investments, public support for innovations.

JEL Classification: L21, H25, E22

1. Introduction

In order to stabilize and accelerate socio-economic development, Ukraine focuses on the study and generalization of world experience in using the sources of economic growth. In a post-industrial society, the achievement of positive results largely depends on the approach to innovation. This ensures the maximum effect from its functioning and realization to full potential the modern purpose of innovation as a key factor in economic development.

In Ukraine, over the past 20 years, science and innovation have low competitiveness in the international market. For example, in 2015, about \$530 million was spent on research. It is approximately 521 times less than in the United States, 32 times less than in Germany, 24 times less than in England, 23 times less than in France. Sweden, with a population of almost 5.5 times

less than in Ukraine, spends 26 times more money on science than Ukraine. Such state of affairs does not promise the increasing competitiveness of Ukrainian goods in world markets, and even more, the creation of a special product that would provide the country with absolute advantages.

The financial subsystem is an integral part of the national innovation system of the state. Considering the global experience of financial support for innovation in the domestic management practice will contribute to achieving the goals of national socio-economic development, realizing and increasing competitive advantages, renewing gradually lost positions in the global innovation space, which determines the relevance of the study.

From different perspectives, the issue of financial support for innovation development is considered in the works

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of domestic and foreign scientists, such as L. Antoniuk, M. Haman, V. Heiets, N. Ivanova, N. Kazakova, B. Kvasniuk, B. Lundvall, R. Nelson, A. Poruchnyk, V. Savchuk, V. Seminozhenko, L. Fedulova, K. Freeman et al. The works of these scholars form the basis for further developments and the theoretical basis of the study.

The aim of the article is to study and generalize world experience in financing innovative small businesses to determine the areas of improvement of financing domestic small and medium innovative enterprises within the framework of state innovative policy.

2. Presentation of the main material

Innovation development today is recognized as the most promising way to create a highly efficient modern economy in the vast majority of countries in the world. Many countries have already made positive progress by moving towards the creation of post-industrial economies.

However, over the last two decades, Ukraine has done little innovations. In Ukraine, the innovation process is under construction and requires new approaches. Some attempts to accelerate this process are not successful enough, although the state declares its intentions in legal regulation.

In particular, the main principles of state innovation policy in Ukraine are:

- an innovative model of Ukrainian economy's development;
- determination of state priorities of innovative development;
- formation of the regulatory framework for innovation activity;
- creation of conditions for preservation, development, and use of domestic scientific-technological and innovative potential;
- ensuring the interaction of science, education, production, finance and credit in the development of innovation activities;
- effective use of market mechanisms to promote innovation, support for entrepreneurship in science and technology;
- application of measures in support of international scientific and technological cooperation, technology transfer, protection of domestic products in the domestic market and its promotion to the foreign market;
- financial support, implementation of favourable credit, tax, and customs policy in innovation activity;
- assistance in the development of innovative infrastructure;
- informational support for subjects of innovative activity;
- training of personnel in innovation activity (On Innovation Activity).

To ensure the development and effective functioning of the system of information and analytical support

for the implementation of state innovation policy and monitoring of the state of innovation economic development, it is necessary:

- to improve the mechanism of monitoring the state of innovation development of the economy;
- to implement an analysis of the effective application of innovation public support and encouragement mechanisms, in particular, in comparison with similar mechanisms used in other countries;
- to ensure the dissemination of information on the state of innovation activity and promising domestic developments to attract potential investors and consumers;
- to intensify public discussion on the issues of the formation and implementation of state innovation policy, etc. (The Cabinet of Ministers of Ukraine).

Without small innovation businesses, a market-driven, innovative economy cannot function and develop. In developed countries, small innovative businesses influence the growth rate of the economy, the structure and quality of the gross national product.

The crisis of 2008-2009 has markedly influenced the development of innovative small business financing and the global economy, in general. Worldwide banking systems have limited lending, consequently, because of credit risks the stimulation of small businesses has been reduced, as well as demand for them has been lost. Therefore, having lost its influx of new investments and liquidity, small innovative businesses look for new sources of foreign and private capital investors and partners through various financial instruments.

The small business support system in Europe traces its origin from the 70s of the XX century. At that time, in order to eliminate administrative barriers, European countries introduced changes in value-added tax and adjustment of financing terms. Moreover, the European Charter for Small Enterprises was also developed; this document gave carte blanche for the implementation of small business support projects (Yevropeiska khartiia malykh pidpriemstv). To date, financing of activities aimed at supporting small business innovation comes from the EU Structural Funds, such as European Regional Development Fund, European Social Fund, that greatly help small enterprises survive the stagnation phenomena of the post-crisis period.

It is believed that the level of small business development determines the development of the economy in total. For example, there are at least 30 entrepreneurs per 1000 citizens in the EU member states. In the EU, small enterprises are up to 90% of the total number of enterprises (Malyi biznes: kreditovaniye malogo biznesa).

Therefore, nowadays the most promising sphere of small businesses is innovation, which comprises the intellectual property market. The main condition for the successful functioning of this market is capitalization of intangible assets in the form of intellectual performance.

Various national experiences can demonstrate the conditions for the transition to an innovative economy through financing innovative small businesses.

Since the 1960s, Japan has been the first to capitalize intangible assets of its enterprises through the intellectual property market, due to buying abroad the right to the results of intellectual property rights protected by patents and, following their re-evaluation, transforming them in intangible assets of greater value. In the 90s, having significantly improved Japanese experience, the USA successfully applied it. Currently, most countries plan capitalization of intangible assets, subject to depreciation. In the US, intangible assets are depreciated over a period of up to 40 years.

China demonstrates effective business development based on the commercialization of intellectual property. For example, the Industrial Park (Suzhou, PRC), established in April 2000, occupies 61 hectares; more than 1 million square meters provide 10,000 people with jobs with an investment of over 4 billion yuan in this period. The secret of such success is in the state strategy "To the innovation economy through the market of intellectual property" in each concrete project. In this case, the main link between the university (the centre for generating ideas), production (where these ideas are being tested), and the management centre (where these developments are implemented on a commercial basis in the real economy) is a company that provides a range of services in intellectual property. As a result, one municipal city in the PRC has about 25,000 patents, and one medium-sized Chinese telecommunication firm has 60 patents and 1500 know-how, accounting for up to 40% of its annual revenue. The structure of public expenditures on transforming small business intelligence into an intangible asset, involved in the economy, finances, research and development in China, Great Britain, France, and other countries, is from 60 to 80%.

In the USA, innovative small business financing is implemented effectively. For example, in the pre-crisis years (2008-2009), for direct and guaranteed loans, the US Small Business Administration provided entrepreneurs for innovative projects with 550 thousand dollars in two stages for the development of risky projects, further involving private capital. Today, 40% of the US economy is an innovative economy. In the United States, a federal agency, the US Small Business Administration, operates with offices in all states. The agency facilitates lending with guarantees, as well as grants and loans to innovative small business entrepreneurs using own means through various public programs that allow financing the development of small businesses. Under programs, such as Small Business Investment Company, Secondary Loan Market, License Development Companies, Granting of Warranties and several other, the state provides small innovative enterprises with financial support in the form of share capital, loans, investment-grade bonds; enables small business lenders to improve capital

liquidity through the sale some of their loans to investors; ensures their financing at fixed rates for scaling up and modernization; enables innovative small entities without collateral for a commercial bank to receive guarantees, warranties. In the United States, small businesses have begun to engage in state support earlier than in other countries through government contracts, sources of partial financing, low taxation, direct and guaranteed loans, and so on. In 2010, the United States allocated about \$30 billion to provide targeted loans for small businesses, which created 1.5 million new jobs, including a quarter of all spending in support of innovation in small businesses. The US Congress considers abolishment of all taxes on capital gains, levied on small enterprises, and controls the proportion, according to which small enterprises, including enterprises for the creation of intellectual property, should receive 23% of US public orders. Small enterprises are subject to special tax privileges, for example, a "first-year bonus," that is, the tax is paid not from the total but from half of the taxable base. Under the program of financial and credit assistance, the Small Business Administration guarantees repayment at a government expense of up to 90% of the value of loans and credits. For small business direct lending, the Administration has the right to set their maturity up to 15 years. The experience of the US proves the effectiveness of support that enables to involve bank loans in innovative small businesses by guaranteeing lending.

In contrast to the United States and other countries, China uses the generalized experience of integrating small businesses in the global community, but has programs for the country's economic development, including the development of small innovative businesses by 2020, 2050 to restructure this sphere and involve new financial development mechanisms, successfully approbated in other countries of the world. The key to China's small business development is to provide equal opportunities for all small enterprises in investing, lending, improving production, creating and commercializing intellectual property. China has established public funds to support and develop entrepreneurship, financed by public budget funds. The Chinese Centre for Business Cooperation and Coordination is engaged in creating special conditions for the cooperation of Chinese and foreign organizations for supporting small businesses, studying world experience. Over the past eight years, China has rapidly increased the number of small enterprises, including innovation, which provided significant budget revenues to the state treasury. In China, in small businesses, 60% of the able-bodied population of the country work (Razvitie ekonomiki Kitaia).

According to the similarity of the forms and financial mechanisms of small business development in China, the USA and other countries, in Japan, the Small and Medium Enterprise Insurance Corporation and Credit Guarantee Association have been set up to facilitate

procedures for obtaining loans for small innovation business entrepreneurs. Japan's financial policy provides for the status of small enterprises and provides them with the benefit rates, according to the type of activity, regulating the market value of products produced by restrictions on reduction/increase. In the case of overpricing or unjustified discounts, small business entities are deprived of the right to operate.

In Singapore, where offices of more than 3,000 companies in the world are located, financial innovation infrastructure for small businesses is well developed. Innovative small businesses are subject to a preferential tax law that allows attracting foreign capital and investments into the country. There is also no duty on remittances, while investments in the economy are guaranteed, and a large number of credit programs for small businesses are implemented, including special loans, subsidies, and credit risks, while lending rates are constantly decreasing (*Ekonomika v Singapore: znachenie i rol malogo predprinimatelstva*). The Singapore government, interested in supporting small innovative businesses to compete in the international market, has managed to create an innovative economy. The agency "Spring," organized in support of entrepreneurship, is engaged in the development and implementation of programs for promoting small businesses. In Singapore, active financial support has contributed to the existence of about 140,000 small and medium enterprises, which cover almost 90% of all enterprises in the country. According to Studies conducted by CNN Time Warner Group, Singapore ranks fifth in the world in the development of small businesses, has a branched innovation and actively integrates into other countries.

In Spain, the program for small business development, financing and technical support is based on European programs that have spread to European countries, including Britain, Germany, and France. In financial support, Spain gives preference to innovative small enterprises involved in the country's social policy, as well as the development of territories with low economic indicators (*Maloe predprinimatelstvo i biznes v Ispanii*). An interesting feature of small business development in Spain is the fact that both Spanish citizens and foreign citizens (non-residents) obtain a license and register their own businesses in less than 24 hours. Various organizations and funds, such as associations for supporting small businesses in the European Union, the State lending institution of the country and mutual funding societies, which invest, finance, and provide development subsidies, assist in the acquisition of start-up capital. The European Bank for Reconstruction and Development (EBRD), involving more than 60 country members, actively promotes innovative small businesses, strengthens financial institutions and financial systems, develops the infrastructure needed for small enterprises in the European Union, Central and Eastern Europe,

non-European countries through its network of local offices. With a large set of financial instruments, the EBRD provides direct financing for small and medium-sized enterprises, including under bank credit risk. At the same time, the basis of the loans provided is the ability of the project to repay the loan within the agreed period. The EBRD helps innovative small businesses gain access to financing by providing guarantees, provides investment in the form of subscriptions to ordinary and preferred shares, quasi-investing from auxiliary loans, profitable promissory notes and bonds to preferred shares subject to redemption, and through other financial support tools.

The European Union also demonstrates support of small businesses in the innovation sector. It is an economic world community, which enables to form a single internal market and to support the monetary, economic, and political alliance of countries. All EU member states have a network of small business development organizations supported by public and private sectors. The joint activities of national and supranational bodies concerning the promotion of small and medium-sized business development in the EU include the financial encouragement of innovative small business development using the most appropriate sources and types of financing. With over one billion euros in funding, through financial instruments, using innovation programs, the EU expects to facilitate access to funding from 300 to 400,000 small and medium-sized enterprises (*Financing Programmes for SMEs*).

In the EU, one of innovation development generators is Germany, which has constructed a powerful national innovation system. Thus, about 40% of the newly created value in the country falls on the innovation-intensive sectors of the economy, and 58.7% of enterprises implement product and technological innovations. Germany is the third largest exporter of high-tech products in the world market. In the global markets for aerospace, instrumental, pharmaceutical products, its share is 14%, and the total turnover from trade in high-tech products is about \$16 billion. Germany is the fourth by innovation indicators and the total index of Global Competitiveness, the fifth by the number of patents, the eighth by gross research and development costs, in addition, plans to increase this figure up to \$3350 billion by 2020.

Within the framework of the German innovation policy, the system of financial support for innovation was developed. One of their key implementation principles is the clear commitment to the objectives within the comprehensive National High Tech Strategy (HTS), which operates until 2020, and integrates strategies for 17 future areas to implement successfully new technologies. In order to implement the provisions of the HTS, state funding is used to support cluster projects, academic, university science, "main innovations." For example, according to the results of

the competition “Germany’s Leading-Edge Clusters – more innovation, more growth, more employment,” the 15 best clusters receive budget funding for up to 5 years of total 600 million euros. In accordance with the Covenant of Research and Innovation Support, 3% increase over the current funding of the largest academic research institutions is applied to improve the international competitiveness of German science and technology development from within existing capacities. For ten best universities with a developed system of scientific research, an additional annual budget financing of 21 million euros is conditioned by the Prospective strategies for the development of university science. Support for “key innovations,” that is targeted innovation projects, is carried out in those areas of strategic research, where serious scientific developments exist and can provide a quick practical impact in key sectors of the German economy, that is, accelerate their growth, strengthen their positions in existing markets and help them develop new ones effectively. Now in Germany, six “major innovations” are implemented: electronics (within the NanoFab program) with state support of 323 million euros); automotive industry (the NanoMobil program) with budget allocations of 37 million euros; optical industry (the Nanolux program) with state participation in financing of 156 million euros; Medicine and Biotechnology (the NanoForLife Program) with state support of about 24 million euros; chemistry (the NanoChem program) with a state funding of 31 million euros; energy with the government financial participation in research of 20 million euros (Kornilova, 2014).

In France, in 1999, a law on innovation was enacted, providing for the participation of researchers on a competitive basis to start businesses. In order to promote projects in the country, there is a program for the development of incubators for small firms to get from two to three free of charge years for the use of premises, equipment, and other facilities. Significant funds are allocated by the state for technology transfer. For the payment of specialists, loans are provided, up to 50% of which are irrevocable.

The French Innovation Relay Centre (IRC France Centr’EST) operates in a regional environment where local authorities actively collaborate in promoting innovation among small and medium-sized enterprises. A basis for the marketing strategy is the centre’s own service proposal “Global Time Technology Proposal,” consisting of four main components: a package of technological proposals; a package of technological requests; short-, medium-, and long-term services; technology market research. This approach has proved its effectiveness in attracting clients, as evidenced by the following facts: 12 signed innovation contracts, the success of which has increased by 33% (Doslidzhennia: obgruntuvannia napriamiv rozvytku innovatsiinoho pidpriemnytstva z urakhuvanniam svitovoho dosvidu).

In Belgium, the innovation process is encouraged by the so-called cluster policy. According to federal law, tax liabilities for small enterprises involved in the innovation process can be reduced up to 100%. In Flanders, an investment law provides for the budget for technology transfer available via universities and research institutes (Tymoshenko, 2014).

The Portugal’s Innovation Relay Centre (IRC Portugal (ISQ)) manages one of the two information centres in Portugal and supports innovation in the framework of transnational cooperation on the transfer of technology to Europe (Chernenko, 2011).

Great Britain has a significant experience in public guaranteeing of bank loans. The state guarantees a return of 70% of loans granted to venture capital firms, and reimburses up to 50% of all innovation costs and subsidizes small innovative firms. The UK has a well-developed network of over 325 business incubators, regulated by the Office for Business Incubators. The UK Business Incubation provides a wide range of services from the creation of a company and its leasing transfer to consulting, financial, legal, employment services, etc.

Priorities of UK innovation involve medical technology, renewable energy, nanoelectronics, communications infrastructure protection, biotechnology, intelligent management system, environmental management. The country attaches great importance to the development and advancement of high-tech ecological services in the world market (Yepifanova, 2013).

In the Netherlands, there is the Mkb-innovatiestimulerend Regio en Topsectoren (MIT) program for stimulating innovation in small businesses in the regions and “top sectors.” According to this program, the Netherlands Ministry of Economic Affairs cooperates with local authorities to encourage innovation in small businesses.

The “top” or key sectors in the Netherlands include agro-industry, horticulture and seed production, high technology, energy, logistics, creative economy, health and life sciences, and the chemical industry. The Government of the Netherlands has determined these sectors as providing the country with competitive advantages in the global market and as priorities for development. The Top Consortia for Knowledge and Innovation (TKIs) work in each sector, bringing together entrepreneurs and academics in a particular industry and partially funded by the government.

The innovation promotion program contains the following instruments:

- consulting projects (obtaining consultations from a scientific institution or an independent consulting company);
- projects of technical and economic testing of innovative products (determination of technical and economic risks for the innovation proposed);

- collaboration in research and development (sharing knowledge with independent partners to implement innovation in products, processes or services);
- vouchers of knowledge (possibility of consulting in a scientific institution).

Top Consortia also present two instruments, such as broker services for innovation and networking (Kovalchuk, 2015).

3. Conclusion

Therefore, the global financing of innovative small businesses has demonstrated that financial support of innovative small businesses is based on its targeting and has different sources of financing. Moreover, the capitalization of small business intangible assets in the

form of intellectual performance is a basic condition for the transition to a developed economy and provides a wide range of financial instrument applications in a market economy. Capitalizing intangible assets for over half a century, the United States, Japan, China, Great Britain, France, Germany, the Netherlands, and a number of other countries have managed to effectively implement the financial support of innovative small businesses, to maintain this process by state strategy, government orders, to involve private capital, to engage small business resources in market turnover and to build a powerful innovative economy. The economic world communities' policy, focused on the primary financial encouragement of innovative small businesses, leading scientific research that creates intellectual property, contributed to this as well.

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METHODS OF FINANCIAL CONTROL OF THE STATE FINANCIAL INSPECTION OF UKRAINE

Anatolii Shulha¹, Iryna Zharovska²

Abstract. *The aim* of the article is to determine the methods of financial control of the State Financial Inspection of Ukraine. *The subject of the study* is the methods of financial control of the State Financial Inspection of Ukraine. *Methodology.* The study is based on the use of general scientific and special-scientific methods and techniques of scientific knowledge. The logic-semantic method was used to determine the content of the notions of “method”, “form”, and “concept”. The comparative legal method enabled to compare doctrinal approaches to this issue. The normative-dogmatic method enabled to interpret the content of legal regulations of the domestic legislation on the issue of determination of financial control methods of the State Financial Inspection of Ukraine. The system-structural method enabled to analyse the most common methods of financial control. Methods of analysis and synthesis helped study certain methods of financial control to formulate further conclusions regarding the most optimal functioning of the State Financial Inspection of Ukraine. *Practical implications.* The determination of the methods of financial control of the State Financial Inspection of Ukraine enabled to make recommendations for improving the procedure of financial control of the State Financial Inspection of Ukraine, as well as identify problematic issues that require further consideration and research. *Relevance/originality.* The methods of financial control are defined and classified. The absence of a check without linkage to the subject (public procurements) among the forms of control of the SFI of Ukraine is revealed so that independent coexistence of such a form of control as “public procurement check,” which methods are documentary and/or factual examination, can be asserted.

Key words: control, method, financial control, State Financial Inspection, check, scanning.

JEL Classification: P43, M42

1. Introduction

Control is an eclectic phenomenon, widely used, therefore, it may be characterized differently, for example, considering it as one of the main principles of management, as a stage of management process (cycle), the method of management as a mode of activity and the possibility of influencing on the behaviour of the relevant object, a function of public administration, an integral part of adoption and implementation of managerial decisions, which is continuously involved in this process from its beginning to its completion (Kocherin, 1982). For today, the system of state financial control in Ukraine is at the stage of formation and development. From the aim of state financial control up to certain powers of officials implementing the control bodies' competence, all components of the system are reformed on the basis of changes in the legal regulation of individual control issues. At the same time, one of the problematic issues is the definition of methods of financial control, in particular, used by the State Financial Inspection of Ukraine.

Some of the problematic aspects of the activities of the State Financial Inspection of Ukraine were considered in scientific works of: V. B. Averianov, O. F. Andriiko, H. V. Atamanchuk, A. M. Bandurka, D. N. Bakhrakh, L. P. Bila, Yu. P. Bytiak, V. M. Harashchuk, O. V. Zaichuk, S. V. Kivalov, Z. R. Kisil, R. V. Kisil, V. V. Kopeichykov, A. M. Kolodii, V. K. Kolpakov, Yu. M. Kozlov, O. M. Kurakin, A. F. Melnyk, V. V. Novikov, O. P. Orliuk, O. A. Pavliukh, O. F. Skakun, Yu. M. Starilov and many others. However, in the legal literature, a considerable number of interrogations does not involve a comprehensive study of the issue of financial control methods of the State Financial Inspection of Ukraine. Therefore, the aim of the article is to determine and consider the methods of financial control of the State Financial Inspection of Ukraine.

2. Presentation of the main material

The method is usually considered as the technique or means to achieve the goal and objectives (Osnovin, 1971). The method is a set of practices or operations of practical and theoretical development of reality

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² Lviv Polytechnic National University, Ukraine.

(Prokhorova, 1998). Therefore, the methods of control are a set of ways and techniques of its implementation, according to V. M. Oparin (Oparin, 2002). While strongly supporting the scholar regarding the interpretation of control methods, the means as an integral part of the methods should be clarified. Indeed, without the means of electronic computer technology, means of measurement, weighing, audio-visual, electronic, and other technical means, means of communication, etc., not a single control procedure can be carried out. For example, the control measurement is carried out with the obligatory use of means enabling to rate and weight the monitored parameters. Alternatively, when exercising control over the accounting of payroll, the controller usually uses a calculator or other means of electronic computing for the speed and accuracy of the results obtained. Therefore, it would be considered more accurate to define methods of control as techniques, ways, and means to determine compliance of controlled objects with given parameters.

The above definition of the method of control reveals that it is impossible to agree in general with L. M. Kapaieva and M. S. Liakh that the methods of financial control are ways, techniques of its implementation that make observations (general review of the state of the object's financial activity), check (carried out on-site using balance, reporting, expense documents), examination (carried out on individual aspects of financial activity and based on a wide range of indicators), analysis (conducted on the basis of current or annual reporting and is characterized by the use of analytical techniques), revision (method of documentary control of an enterprise, institution, organization, compliance with financial legislation, technique of documentary detection of financial abuses) (Kapaieva, Liakh, 2004). Similarly, L. K. Voronov's perspective cannot be supported, because the main methods of financial control are observation, examination, accounting, analysis, check and revision (Voronova, 2009). The determination of methods of financial control, such as revision; check; inspection; examination; observation; analysis; listening, as the most frequently used is analogically inaccurate (Nahrebelnyi, Chernadchuk, Sukhonos, 2003).

Therefore, the absence of a legislative definition of the criteria enabling to delimitate and interpret concepts of the form and method of control leads to the inconsistency in the interpretation of their content. However, it is indisputable that concepts are an important component of theory and practice that comprise the scientific knowledge about the nature and essence of the phenomenon, and reflect the characteristic patterns and connections. A concept is a form of scientific thinking, a form of knowledge of reality as it is. (Kolesnyk, 2014). The system of concepts reveals the content of the theory. Without clear, scientifically substantiated concepts, there can

be no scientific theory. In this system, categories are wide-ranging fundamental concepts that concentrate knowledge about the most important aspects and characteristics of the object under the study, its regular connections and relations (Kolesnyk, 2014). Once more this proves that the Law of Ukraine "On the Basic Principles of the Implementation of the State Financial Control in Ukraine" No. 2939-XII as of January 26, 1993, should provide for the legislative definition of the concepts, which are relevant for the implementation of corresponding activities, including the concept of forms of control and its methods.

Nowadays, a number of authors understand the forms of control as the ways of expressing its content (Nahrebelnyi, Chernadchuk, Sukhonos, 2003). The authors of this article argue that methods, not the forms, characterize the techniques, ways, and means of conducting control actions by the subject. Moreover, for the legal regulation of state financial control by the SFI bodies of Ukraine, this argument is reflected in the legislation. Therefore, observation, examination, and analysis should be included in the list of methods of control.

The revision and check of public procurement are the forms of control of the SFI of Ukraine, according to provisions of the Regulation on the SFI of Ukraine, the Law of Ukraine "On the Basic Principles of the Implementation of the State Financial Control in Ukraine" No. 2939-XII as of January 26, 1993. Thus, the revision should not be among the methods of financial control, as the legislation clearly defines it as the form of control of SFI of Ukraine.

Considering the check, in particular, the public procurement check, this construction clearly defines the form of control of the SFI of Ukraine, regulated according to the Law of Ukraine "On the Basic Principles of the Implementation of the State Financial Control in Ukraine" No. 2939-XII as of January 26, 1993, the Regulation on the SFI of Ukraine, the Procedure for carrying out inspections of public procurement by the State Financial Inspection and its local bodies, approved by the Resolution of the Cabinet of Ministers of Ukraine No. 631 as of August 1, 2013, and other legal regulations of the legislation of Ukraine.

The analysis of these regulations shows that a form of control such as a check without linkage to the subject (public procurements) is not defined among the forms of control of the SFI of Ukraine. Therefore, considering the check as such, this category can be understood as the method of control. The above is proved by clause 16 of the Procedure for carrying out public procurement inspections of the SFI of Ukraine No. 631: "During the public procurement check, a documentary and/or factual examination of the issues of the program for the public procurement check is conducted." However, considering the use of the same term for the form and method of control, it is necessary to be accurate using

the term “check” when identifying the methods and forms of the SFI of Ukraine. In other words, it should be clarified whether the form or method is meant.

To eliminate this problem, it is possible to change the terminology of financial control to use different terms for the form and method of control. For example, O. B. Morhulets suggests a successful classification of methods. Accordingly, the methods of control are classified into the following groups: factual (laboratory analysis, control acquisition, control measurement of completed building, assembling, repair works, time and motion study, inventory, examination, control (trial) provision of a new service in quality and quantity, normative check, experiment, etc.); calculating and analytical (technical and economic calculations, analytical estimation, arithmetic checking, dynamical-statistical estimation); documentary (study of the essence and content of the documents reflected in operations, logical check, accounting correspondence check, counter-verification of documents, etc.) (Morhulets, 2012).

This classification is consistent with the objective to implement the functions of financial control by the use of specific methods of financial control, which reflect the principles of a general approach to the object of control. These principles are based on a combination of general scientific and methodological techniques of knowledge, which enables to interrogate the legality, reliability, feasibility, and economic efficiency of financial transactions and processes based on the use of accounting, reporting, regulatory and other information in combination with the examination of the actual state of affairs of the object of control (Nahrebelnyi, Chernadchuk, Sukhonos, 2003).

Concerning the specific methods of state control carried out by SFI of Ukraine, their list is very diverse. For example, A. F. Andriiko argues that the function of control in public administration consists in analysing and comparing the actual state of affairs in one or another sphere with what is required of them, the deviations in the task performance and the causes of these deviations, as well as the activity assessment and the expediency of this way (Averianova, 2003). While fully supporting the scientist in relation to the distinguished methods of state control, the restriction of the content of this phenomenon is arguable. To be precise, the list of methods that can be used by the controller is broader and encompasses such methods as observation, analysis of the activities of the relevant authorities and their officials concerning the tasks assigned to them, compliance with the rules, norms, and standards established by the state (Voronova, 2006); listening, contrast, comparing and other general and special techniques, ways and means of achieving the purpose of the control activity.

The list of methods of financial control is not clearly defined within the framework of a separate article of

the law or regulation, but a significant amount of such methods is defined in the content of the act. For example, Article 3 of the Law of Ukraine “On the Basic Principles of the Implementation of the State Financial Control in Ukraine” No. 2939-XII as of January 26, 1993, provides for that “Public financial audit shall be a type of the public financial control and shall consist in examination and analysis of the actual state of affairs...” From this definition, the following methods of the public audit are identified as examination and analysis. Article 4 of the same law provides for that “inspection shall be carried out by the body of state financial control in a form of revision and shall consist in documentary and factual examination...” Therefore, the types of examination, such as factual and documentary, are selected.

Therefore, the most widely used methods of financial control of the SFI of Ukraine should be considered. Inventory, survey, and control measurement of material assets, works, and services are all classified to the methods of factual examination. When they are used, the object of control provides access to warehouses, storage facilities, production facilities, and other premises owned or used by the object of control. In addition, the officials of the controlling body have the right to demand from the head of the object under control or his deputy to create the appropriate conditions for carrying out the factual examination with the participation of materially responsible persons of the object under control and, in the case of verification of the scope of work performed, representatives of the business entity, that is, a performer (clause 18 of the Procedure for carrying out public procurement inspections of the SFI of Ukraine No. 631 (The Cabinet of Ministers of Ukraine)).

During the factual examination, specific methods may be an opinion poll and questionnaire survey. In the course of the inspection, in case of some negative results, the control body makes a decision on conducting a check or revision (Voronova, 2006). In contrast to the factual examination as a method of control, a documentary examination is carried out using methods of financial state diagnosis, reporting examination, primary analysis of compliance with financial legislation, assessing the compliance of activities with statutory documents (Voronova, 2009). Therefore, the documentary examination involves control by examining documents of the object of control. To date, some of them are stored and processed on electronic media. Therefore, in case of document circulation with the use of electronic storage and processing of information, the law provides for that, upon the request of an official of the controlling body, the head of the object under control shall ensure provision of corresponding documents in hard copy and in the required number of copies, as well as unimpeded access to electronic documents (clause 17 of the Procedure for carrying out public procurement inspections of the SFI of Ukraine No. 631 (The Cabinet of Ministers of Ukraine)). A mechanical precision check is a type

of documentary examination that involves checking again calculations and transmission of information (Nemchenko, Redko, 2012).

Observation (monitoring) is the general monitoring of the financial activity of the entity under control (Nahrebelnyi, Chernadchuk, Sukhonos, 2003). Scanning is a continuous, elemental review of information (for example, a review of primary documents on cash flow in the cash register in order to establish an unusual fact) (Nemchenko, Redko, 2012). Accounting is a very specific financial-control method, which is used only by the control bodies in the registration of entities (for example, taxpayers) or in other cases, determined by the current legislation. Accounting is not limited to registration work, but also provides for analytics and the creation of an information base (Voronova, 2009).

The analysis is carried out according to the reporting data (current or for a certain period), using such special statistical methods as an index, a method of average and relative values. The main financial and economic characteristics of the object under control are analysed to identify implicit violations of financial discipline and their causes. In this case, a financial-economic method of comparison is especially effective (Voronova, 2006). Analytical tests are methods of comparison, both in absolute units and in relative ones (indexes, coefficients, percentages) (Nemchenko, Redko, 2012). Hearing of reports, information of officials on financial activities at meetings of some state executive bodies or their joint meetings with representatives of the public, other elements of the mechanism of the state in the form of conferences, round tables, etc., is a separate control method (Nahrebelnyi, Chernadchuk, Sukhonos, 2003).

Confirmation involves a written response from the client or third parties in order to confirm the accuracy of information (for example, confirmation of receivables) of income (Nemchenko, Redko, 2012). Confirmation as a control method of the SFI of Ukraine may be a kind

of "counter" verification, that is, the primary documents or reporting data are compared with similar or interrelated data of the counterparty (Voronova, 2006). The factual examination should be understood as the quantitative and qualitative status check of the objects by examination, review, measurement, recalculation, weighing, laboratory analysis, and other methods for checking the actual state of assets.

The documentary examination is a check of documents and records, which can be technical, arithmetic, and substantive. The technical examination consists of visual checking of the correctness of all requisite records, the identification of groundless corrections, erasures, adscript in text and figures, and the authenticity check of signatures of officials and materially responsible persons. An arithmetic check of documents is the check of calculation correctness in documents, account registers, and reporting forms. A substantive check of documents enables to verify the legality and feasibility of economic transactions, the correctness of transactions on accounts and inclusion in the items of expenditure and gross revenue (Nemchenko, Redko, 2012).

3. Conclusion

Therefore, it should be noted that the methods of financial control of the SFI of Ukraine represent a set of techniques, ways, and means that allow the bodies of the system to achieve their goals. The choice of control methods depends primarily on the scope of work and tasks. For this purpose, the main criteria are the minimization of duty hours for control works and the effectiveness of the chosen method of control. In addition, the methods of financial control should be chosen depending on a combination of factors: the subject of control, the object of control, the aim and objectives facing the subject of control and the grounds for control legal relations, as well as on other circumstances.

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