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METHODOLOGICAL PROVISIONS ON THE PERFORMANCE EVALUATION OF AGRARIAN PRODUCERS AND THEIR COOPERATIVE ASSOCIATIONS IN THE PRODUCTION AND SUPPLY CHAIN

Oksana Nikishyna[1], Svitlana Bondarenko[2], Oksana Zerkina[3]

Abstract. *The purpose* of the article is to develop methodological provisions on performance evaluation of agrarian producers and their cooperative associations in production and supply chain on the basis of updated reproduction approach that is based on the use of net value added indicator. *The research methodology* is to conduct a critical analysis of existing scientific approaches to the assessment of value added; substantiate components of net value added; develop a structural scheme of methodological provisions in the duality of conceptual and methodological bases; substantiate a four-level system of estimating indicators using the net value added indicator; determine the possibilities and advantages of author's methodological provisions. *Results.* The authors prove the expediency of using the net value added indicator to assess the efficiency of both production and supply chains, as well as producers and their cooperative formations that are non-profit organizations. The components of net value added, which include wages, profit, and specific expenses of business entities in terms of the parts of the production and supply chain, are substantiated. The authors proposed a structural scheme of methodological provisions that united the conceptual and methodological bases, defined the main principles of evaluation: objectivity and accuracy, systemacity and complexity, efficiency, purposefulness, the priority of economic interests of the state (macrolevel). A four-level system of indicators is developed for estimating volumes and dynamics of net value added, reproductive product profitability, the structure of net value added, the efficiency of material and labour resources use. *Practical implications.* Methodological provisions can be used by commodity producers and their associations to assess the efficiency of operation in the production and supply chain, justifying the feasibility of establishing a cooperative in the region. Also, the results of the analysis can be used by the state authorities during the definition of "gaps" in the chain and the justification of methods of selective regulation for its balanced development. *Value/originality.* Methodological provisions developed by the authors form the analytical foundation for making managerial decisions both at the micro level (producers, cooperatives) and meso and macro levels (regional and state authorities).

Key words: agrarian producers, cooperatives, production and supply chain, efficiency.

JEL Classification: L10, L22, L50

1. Introduction

In a dynamic market, the realization of the potential of farms and private households that form the individual sector of the agrarian market, specialize in the production of low-income, labour-intensive but socially significant products, envisages the creation and development of cooperative production and supply chains (hereinafter – the PSC). Such chains combine commodity flows of agricultural cooperatives, allowing their members, including individual farms, to increase the value added of products, expanding their presence from one agrarian link to several links of the PSC (storage, processing, sales of products), to reduce logistics costs, to increase the efficiency of small business entities.

Justification of the directions and mechanisms of state support for the creation and development of cooperative

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PSC in Ukraine necessitates the development of methodological support for assessing the performance of such chain organizations at the meso and macro levels. At the same time, it is important for members of agricultural cooperatives to evaluate the efficiency of the activity of a separate association (micro level). Given its social orientation and non-profit status, the use of profit as the main performance indicator, unlike enterprises of other forms of management, is not feasible. Thus, there is a need to change the main benchmark of the activity of cooperatives, which allows assessing the degree of realization of economic interests as of individual households – members of the cooperative, so of the state. In our view, such a benchmark is the value added indicator (hereinafter referred to as VA), which is a universal criterion for evaluating the efficiency of systems functioning at micro, meso, and macro levels.

2. Scientific approaches to the assessment of added value

In economic theory, there are four scientific approaches to the interpretation of the essence, nature, and methods of calculating the value added: (1) reproductive; (2) statistical; (3) accounting; (4) logistics. The basis of the reproductive approach was developed by K. Marx (Marx, 1978). According to his theory, the newly created value added includes the amount of remuneration of workers who directly create a new value and the profit of enterprise owners.

The statistical approach reflects the features of the macroeconomic accounting of the VA based on the system of national accounts. The State Statistics Service of Ukraine defines gross value added as the difference between the issue and intermediate consumption; by type of economic activity, gross value added is calculated as the sum of wages of hired workers, other taxes, except for other subsidies associated with production, and gross profit (mixed income). The term "gross" means that VA includes the amount of fixed capital consumption (depreciation). In the interpretation of the "value added" and "intermediate consumption" indicators in the context of the classical economic theory, depreciation is an element of the latter (Bratenkova, 2013).

If by the statistical approach gross value added is identified with the income generated by a certain type of economic activity in the total GDP, then the added value by the accounting approach is estimated from the point of view of the material carrier of this quantity, that is, the concrete product. In the accounting, VA of goods is calculated as the difference between the proceeds from the sale of the goods and the cost of the raw materials, supplies, and services purchased on the basis of the cost price of the products. In research, the methodology of accounting approach is used to analyse the VA of certain goods. By the logistic approach, the added value serves as a measure of the process of forming value, which purpose is to offer the client tangible utility (Hirna, Hlynskyi, Kobyliukh, 2012).

3. Essence and components of net value added

We suggest using an indicator of the added value of goods (services) for the analytical basis for constructing methodological provisions on the performance evaluation of agricultural producers and their cooperative associations in the PSC. In economic theory, there is no single approach to the definition of content and components of value added. The modern encyclopaedia treats VA (value added by processing) as the value of the sold product less the cost of materials purchased and used for its production. VA equals revenues, including wages, lease payment, rent, bank interest, profits, and depreciation; in many developed countries, it serves as the basis for indirect taxation. Another approach to the interpretation of the essence of value added is found in the economic dictionary: the value that is created in the production process at this enterprise and reflects its real contribution to the creation of the value of a specific product. In our view, this approach most deeply determines the nature of value added, hence it can be used for its interpretation at the chain level.

Thus, value added is the value created in the process of production of goods (provision of services) by economic entities of a certain level of the production and supply chain, which reflects the real contribution of this link in the formation of the value chain. VA reflects the value added for the product when it passes through the chain from the original manufacturer to the end user. It is intended to measure the value created by economic entities on a certain link of the PSC. Total value added in the chain will include the sum of all newly created values of links; their number depends on the specifics of reproducing the product in certain geographical boundaries.

In domestic and foreign science and practice, there is no single approach to the definition of resource components of VA. In our opinion, in this aspect, two main approaches can be distinguished. The supporters of the first approach (Hirna, Hlynskyi, Kobyliukh, 2012; Ivanenko, 2012), along with the income and wages of employees, include the depreciation of non-current assets in value added. The supporters of the second approach (Bulyga, Kokhno, 2007; Bratenkova, 2013) consider salaries and profits as the main components of VA. In the classical economic theory, depreciation of non-current assets is a component of intermediate consumption. In terms of capital turnover, depreciation can be interpreted as consumption in a certain operating cycle of a part of the past materialised work (in the form of objects of fixed assets). In order to assess the enterprise's results, the VA indicator is more objective excluding the

value of consumption of fixed capital. It is this indicator that reflects the real volume of the newly created value by the market participant, therefore, is more informative for analysis and management (Bratenkova, 2013).

We support the second approach and suggest using the *net value added* indicator in order to construct a system of indicators on its basis for assessing the performance of agricultural producers and their cooperative associations in the PSC. The term "net" means that the VA does not include depreciation of non-current assets. At the same time, its component is the specific costs that reflect the peculiarities of the reproduction processes of certain parts of the PSC and are characteristic only for them. For example, for the breeding sector, it is expedient to include the costs of cleaning and sorting seeds for the specific costs, for agrarian one – the lease of land plots. Thus, the formula for the calculation of net VA in the links of the production and supply chain will have the following form:

$$\text{ДВ}_{\text{ч}} = \text{ЗП} + \text{П} + \text{В}_{\text{С}}, \quad (1)$$

where $\text{ДВ}_{\text{ч}}$ – net value added, created by the PSC link;
П – a profit of business entities of a certain chain;
ЗП – the wage of employees at enterprises of the link;
$\text{В}_{\text{С}}$ – specific expenses of subjects of a certain chain link.

4. Structural scheme of methodical provisions

Methodological provisions on the performance evaluation of agrarian producers and their cooperative associations in the production and supply chain, developed by the authors, combine the conceptual and methodological bases, the components of which are shown in Fig. 1. The conceptual basis consists of theories of resources reproduction and the formation of a value

Conceptual basis	
The theory of the reproduction of resources, the formation of a value chain	
The purpose of methodological provisions:	
multilevel assessment of the formation of net value added by the links of the production and supply chain as a methodical basis for making managerial decisions to ensure the balanced development of cooperative PSCs	
Tasks of methodological provisions:	
1. Analysis of the dynamics of changes in net value added and performance indicators in nominal and real terms; 2. Analysis of the structure of net value added in the statics and dynamics behind chain links; 3. Evaluating the effectiveness of using resources in the system; 4. Determination of flow "gaps" in the PSC according to the evaluation results; 5. Qualitative assessment of the analysis results as the basis for making managerial decisions at micro and macro levels; 6. Forecasting of development of processes and performance indicators of PSC links' subjects.	
Principles of evaluating the performance of agricultural producers and their cooperative associations in the PSC	
1. Objectivity and accuracy	The information base for evaluation should be reliable, and its results should be based on accurate analytical calculations
2. Systemic and complexity	Performance evaluation of the PSC as a dynamic system is carried out taking into account all internal and external connections between the elements and their interdependence
3. Efficiency	The evaluation results should have an applied value, serve as a basis for taking measures for levelling (reducing) flow "gaps" in the chain
4. Purposefulness	Target definition of flow "gaps" in the PSC, which are a source of the disintegration of system elements
5. Priority of economic interests of the state (macro level)	Performance evaluation of the PSC is carried out not from the standpoint of economic interests of individual market players but the state as a carrier of the interests of society; This principle is also the key to making managerial decisions about the selective influence on the flow "gaps" in the chain
Methodological basis	
Methodological provisions on the performance evaluation of agricultural producers and their associations in the PSC. **Main stages of evaluation:** *1. Definition of the commodity, territorial, and time limits of the market for certain agricultural products.* *2. Performance evaluation of producers in the PSC using a set of indicators:* 2.1. Estimation of volumes and dynamics of net value added 2.2. Evaluation of reproductive product profitability 2.3. Estimation of the structure of net value added 2.4. Assessment of the efficiency of the use of material and labour resources (by net added value) *3. PSC diagnosis, qualitative analysis of cause-and-effect relationships that determine flow processes in the chain; projected scenarios for the PSC development.*	
Priorities of the national cooperative policy, strategic guidelines for the development of agrarian cooperation in an open economy	
Methods of state regulation of the development of cooperative PSC: 1. Regulatory 3. Administrative 2. Financial and economic 4. Organisational	

Figure 1. Structural scheme of methodical provisions on the performance evaluation of agrarian producers and their cooperative associations in the production and supply chain

Source: the author's development

chain. The main goal of the methodological provisions is the multilevel assessment of the formation of net value added by the links of the production and supply chain as a methodical basis for making management decisions in order to ensure the PSC balanced development. It is about managerial decisions both at the micro level (economic entities and their associations) and at the macro level (state authorities). Therefore, the main goal of the provisions organically combines the economic interests of agricultural producers and the state in the aspect of the PSC balanced development, in particular, cooperative ones.

The production and logistics chain has three fundamental properties: dynamism, proportionality, and stability. To reflect these properties, the PSC analysis in general and its links in particular should be aimed at solving three conceptual tasks: (1) analysis of dynamic trends; (2) analysis of the proportionality of development; (3) stability and efficiency analysis. The assigned tasks of the methodical provisions are oriented on the assessment of the principle properties of the PSC, as well as the definition of "gaps", qualitative evaluation and forecasting of the development of the chain and its components (see Figure 1).

The methodical basis includes methodological provisions for assessing the performance of agricultural producers and their associations in the PSC, diagnosing and forecasting the main parameters of the chain development as a basis for choosing the methods and measures of state regulation, coordinated with the priorities of national policy, in particular, cooperative (see Figure 1). Let us consider in more detail the estimated component of the methodological provisions, which involves the design of certain groups of analytical indicators.

5. The system of evaluation indicators

Since the basis of the functioning of the PSC is the movement and transformation of the commodity flow, the first stage of the methodology is to determine the commodity, territorial, and time boundaries of the market for a certain agrarian product. The second stage involves the calculation of four groups of analytical indicators (see Figure 1). Characteristics of the developed four-level system of indicators for assessing the performance of agricultural producers and their cooperative associations in the PSC and the formulas for calculating the indicators are given in Table 1.

The first level of the valuation system involves assessing volumes and dynamics of net value added in two dimensions: nominal and real. To switch from the nominal measurement of the indicator (in current prices) to the real one, it is necessary to recalculate its value in the dollar equivalent. Use of real indicators in the estimation allows, firstly, increasing the objectivity of the analysis, neutralizing the effect of the price inflationary movement, and secondly, carrying out a comparative analysis of the growth rates of nominal and real values and determining the latent trends in the dynamics of their changes. It should be noted that real indicators can be used not only in the analysis of net VA but also additional indicators, in particular, output and cost of production, profit, productivity, etc. (see Table 1).

The indicator of the share of net VA in output, which is calculated both for the individual producer and the PSC link, in the theory of integration analysis serves as one of the classic indicators for measuring and monitoring vertical integration at the level of economic entities. This index varies from 0 to 1, where 1 represents the maximum level of integration.

The ratio of growth rates (indices) of net VA and production output, developed by the author, characterizes in relative terms the dynamics of changes in the indicator of the share of the newly created value in the output and simultaneously determines the factors of its growth (see Table 1). Indicators of the share of net VA in the output and the ratio of these values are among the indicators of the proportionality of the development of a particular system of micro or macro level. The share of proportion indicators, represented by ratios and shares of components of net value added, occupies a significant place in the developed evaluation system. Their analysis in statics (during the reporting year) and in dynamics (for several years) will allow determining trends of dynamic changes, estimating structural shifts and regional differences in the shares of performance indicators.

The second level of the valuation system is oriented towards assessing the reproductive profitability and classical profitability of products of business entities of a certain link of the PSC, reflecting the resulting approach to the evaluation of the efficiency of microsystems. Reproductive profitability determines the amount of net VA per 1 UAH of costs of products (services) of a certain chain link (see Table 1). The level of reproductive profitability, as a rule, is higher than the traditional indicator of product profitability. In terms of loss-making nature of the production and the negative value of product profitability, the indicator of reproductive profitability is positive, reflecting the newly created value, represented, first of all, by social component – wage of employees. This indicator is a practical embodiment of the estimated function of added value, a measure of the degree of realization of the economic interests of workers, economic entities, and the state. Changing the target orientation of microsystems (from the increase in profits to value added) allows hired employees to be regarded as the intellectual capital of enterprises which role in the era of intellectualization and innovation of business activity is increasing (Hridchina, 2013).

The second-level elements of the system include two coefficients of the ratio: (1) the growth rate of net VA

Table 1

The system of indicators for evaluating the performance of agricultural producers and their cooperative associations in the production and supply chain*

Indicators	Characteristics	Formula of calculation	Normative value
1	2	3	4
1. Estimation of volumes and dynamics of net value added			
1.1. Net value added (**ДВ$_ч$**)	Displays the real contribution of the actors of a certain link in the creation of added value in the chain	**ДВ$_ч$ = ЗП + П + В$_С$,** where **ЗП** – the wage of employees of the link; **П** – a profit of business entities; **В$_С$** – specific expenses of the subjects of a certain link	Growth in dynamics
1.2. Share of net VA in production output (**Ч$_{ДВч}$**)	The share of net VA in the output of the entities of a certain link of the PSC	**Ч$_{ДВч}$= ДВ$_ч$ / В,** where **В** – production output (in value terms) of the PSC link	Growth in dynamics
1.3. Ratio of the growth rate of ДВЧ and output (**К$_В$**)**	The ratio of the index of net VA to the output index of the entities of a certain link of the PSC	**КВ = I$_{ДВч}$ / I$_В$,** where **I$_{ДВч}$** – the growth rate of net VA; **I$_В$** – the growth rate of output (in value terms) in view of chain links	More than 1
2. Evaluation of reproductive product profitability			
2.1. Reproductive product profitability (**РВ**)	The volume of net VA per 1 UAH of costs of production of products (services) of a certain link of the PSC	**РВ = ДВ$_ч$ / В,** where **В** – expenses for the production of products (services) of a certain link of the production and supply chain	Growth in dynamics
2.2. Ratio of the growth rate of ДВЧ and the cost of production (**К$_С$**)**	The ratio of the net VA index to the production cost index of the entities of a certain link of the PSC	**К$_С$ = I$_{ДВч}$ / I$_С$,** where **I$_С$** – the growth rate of the cost of production in view of chain links	More than 1
2.3. Product profitability (**Р$_П$**)	The volume of profit per 1 UAH of costs of subjects of the PSC link	**Р = П / В,** where **П** – a profit of the entities of a certain link	Growth in dynamics
2.4. Ratio of growth rates of П and production cost (**К$_П$**)**	The ratio of the index of profit to the index of the production cost of entities of a certain link of the PSC	**К$_П$ = I$_П$ / I$_С$,** where **I$_П$** – the growth rate of profit of entities in view of chain links	More than 1
3. Estimation of the structure of net value added			
3.1. Share of wages (**ЧЗП**)	The amount of labour costs to create 1 UAH of net VA	**Ч$_{ЗП}$ = ЗП / ДВ$_ч$**	Optimization of shares of components of net VA subject to the specificity of reproduction processes
3.2. Share of profit (**ЧП**)	The share of profit in net VA created by the entities of a certain link of the PSC	**Ч$_П$ = П / ДВ$_ч$**	
3.3. Share of specific expenses (**ЧВс**)	The share of specific expenses in net VA of the entities of the link	**Ч$_П$ = В$_С$ / ДВ$_ч$**	
4. Assessment of the efficiency of material and labour resources use (by net added value)			
4.1. Return on assets ratio (**Ф$_В$**)	Value of net VA created using 1 UAH of fixed assets	**Ф$_в$ = ДВ$_ч$ / ОЗ,** where **ОЗ** – the value of fixed assets of entities of a certain link of the PSC	Growth in dynamics
4.2. Material return (**Мв**)	Autonomy of labour; Value of net VA per 1 UAH of materialized labour	**Мв = ДВ$_ч$ / МВ,** where **МВ** – the value of material costs of subjects of a certain link of the PSC	Growth in dynamics
4.3. Ratio of growth rates of ДВ$_ч$ and material costs (**КМ**)**	The ratio of the net VA index to the material cost index of entities of a certain link of the PSC	**КМ = I$_{ДВч}$ / I$_{МВ}$,** where **I$_{МВ}$** – the growth rate of material costs of entities in view of chain links	More than 1
4.4. Materials-output ratio (**М$_Є$**)	Dependence of the production process on external sources; the amount of the transferred value for the production of 1 UAH of net VA	**М$_Є$ = МВ / ДВ$_ч$**	Decrease in dynamics
4.4.1. Raw materials output ratio (**С$_Є$**) 4.4.2. Fuel output ratio (**П$_Є$**), 4.4.3. Energy-output ratio (**Е$_Є$**)	Expenditures of certain types of materials (raw materials, fuel, and electricity) per 1 UAH of ДВЧ in view of chain links	**С$_Є$ = СВ / ДВ$_ч$;** **П$_Є$ = ПВ / ДВ$_ч$;** **Е$_Є$ = ЕВ / ДВ$_ч$,** where **СВ, ПВ, ЕВ** – the value of raw materials, fuel, and energy costs of entities of the PSC links	Decrease in dynamics
4.5. Labour productivity (**ПП**)	Value of net VA created by the employee during the production process	**ПП = ДВ$_ч$ / Ч,** where **Ч** – the number of employees of entities of a certain link	Growth in dynamics

* Developed by the authors using sources (Ivanenko, 2012; Savitskaya, 2002);
** Indicator is proposed by the authors.

and the cost of production, which allows determining the dynamics of reproductive product profitability and the factors of its changes; (2) the growth rate of profit and production cost to assess the dynamic changes of the traditional indicator of product profitability (see Table 1). Calculated ratios can be compared by different links of the PSC. One should note the expediency of calculating indices of cost indicators (output, cost of production, profit) in nominal and real terms for their further comparison and analysis of the influence of the inflation factor on the profitability of agrarian producers and their cooperative associations.

Within the third level of the valuation system, an analysis of the component structure of net value added is provided (see Table 1). The indicator of the wage share determines the amount of labour costs to create 1 UAH of net VA; in the theory of economic analysis, it is called the labour intensity of value added. An indicator of the share of profit determines the specific weight of operating profit in the value created by entities of a certain chain link. V. O. Ivanenko calls this indicator as the profitability of added value (Ivanenko, 2012). An indicator of the share of specific expenses characterizes, first of all, the size of land rent per 1 UAH of newly created value by enterprises in the selection and agrarian link of the PSC; this indicator may be absent in other chain links.

The issue of the optimal structural relation of various resource components of net value added in economic theory is controversial. In general, the shares of the components are determined by the peculiarities of the reproduction process of a particular product. At the same time, the substantial dominance of certain components in the structure of the newly created value is evidence of structural imbalances and discrimination of economic interests of certain groups of participants in the reproduction process (enterprises, workers, consumers). A comparative analysis of the value added structure at micro, meso, and macro levels is intended to determine the unique proportions for economic systems of different hierarchical levels, common or different tendencies in their changes.

The fourth level of the evaluation system focuses on the analysis of the efficiency of material and labour resources, reflecting the resource approach to the evaluation of the effectiveness of microsystems, which involves the rational use of resources. The basis for calculating the main indicators of the efficiency of resources use – return on assets ratio, material return, materials-output ratio, and its private indicators, labour productivity – instead of gross or commodity output indicators commonly used in the economic analysis, is the net value added.

An indicator of return on assets ratio determines the amount of net VA created using 1 UAH of fixed assets of entities of a certain level of the PSC (see Table 1). An indicator of material return shows the value of net VA per 1 UAH of materialized (transferred) labour and characterizes the autonomy of labour. The dynamics of its changes and the effect of factors allow us to estimate the ratio of growth rates of net value added and material costs in view of links of the production and supply chain. Materials-output ratio (dependency ratio), calculated as the ratio of the materialised labour on net VA, characterizes the dependence of subjects of a certain link of the PSC on the external environment. Private indices of the materials-output ratio are raw materials, fuel, and energy output ratios (Savitskaya, 2002); they can be used to assess the economic effect of dematerialization in terms of links of the production and supply chain, which determines their practical significance and the feasibility of inclusion in the system.

An indicator of labour productivity characterizes the value of net added value created in the production process by one employee within the chain link. One should note the expediency of calculating this indicator in nominal and real terms in order to exclude the influence of the inflation factor and objective interpretation of the analysis results. In order to assess the resource use efficiency by links of the production and supply chain, dynamic and static coefficients of productivity of production factors are used. Static coefficients represent the ratio of the volume of net VA to the costs of certain types of production factors in the reported year. Dynamic indices are obtained by dividing the static coefficient for the reporting period by a similar ratio of the previous period; at the same time, the resulting dimensionless indicator reflects the change in productivity over time. Accordingly, the analysis of indicators of the fourth level of the system involves the calculation of both static and dynamic indicators in terms of links of the PSC.

The introduction of methodological provisions for evaluating the performance of agricultural producers and their cooperative associations in managerial practice requires the use of general and special methods. The general method of research is the dialectic method, which involves the study of all phenomena in interconnection and interdependence, as well as in the process of movement, change, and development. The special methods of studying the production and supply chain, given its complexity and versatility, include methods of economic analysis (statistical and economic-mathematical), economic-geographical, and sociological research. The applied implementation of the developed four-level system of indicators (see Table 1) involves the use of methods of comparative analysis (horizontal, vertical, interregional), index and balance methods, methods of mathematical analysis, etc.

Of particular importance in the study process is the balance method, which involves the creation of inter-link balances of net value added, reproductive profitability, material return, labour productivity, and other performance indicators. With such inter-link

balances, one can evaluate and justify the optimal ratio between the PSC links, as well as determine the flow "gaps" in the chain. The balance method is appropriate to use on the third stage of evaluation during the diagnosis of the production and supply chain, qualitative analysis of causal relationships that determine the flow processes in the chain (see Figure 1). The results of qualitative analysis form a multidimensional analytical basis for modelling the forecast scenarios for the development of individual agricultural producers and their cooperative associations, as well as the PSC for a certain product.

6. Possibilities and advantages of methodical provisions

Users of methodological provisions can be producers and their cooperative and other integrated associations, as well as state and regional authorities. The use of methodological provisions by small and medium agricultural producers, as potential members of cooperative associations, will allow determining the dynamics of changes in the main performance indicators of their activities before and after cooperation, calculating the predictive values of these indicators as a justification of the economic feasibility of forming an agricultural cooperative in the region. The results of quantitative and qualitative analysis form the analytical foundation for choosing certain methods of state regulation, coordinated with the priorities of national policy, in particular, cooperative, the implementation of which corresponds to the strategies for the development of agrarian cooperation in an open economy (see Figure 1).

The unconditional advantages of the developed methodological provisions for evaluating the performance of agricultural producers and their cooperative associations in the production and supply chain should include the following:

1) multilevel estimation of the dynamics and structure of net VA by chain links, the formation of interlink balances of newly created value for analysis and substantiation of optimal proportions of the value chain;
2) the possibility of conducting a comparative analysis between different links of the PSC, which allows identifying the flow "gaps" that are the object of selective management influence;
3) the calculation of the main performance indicators in real and nominal terms in order to exclude the influence of the price inflationary movement and increase the objectivity of analytical calculations;
4) multi-dimensional analysis of the proportionality of the chain development by calculating the parameters of the structure in statics and dynamics for the determination of structural imbalances and deformations that hamper the system development;
5) assessment of the efficiency of material and labour resources use in micro and macro systems with the help of indicators developed on the basis of net VA, which allows ensuring the accuracy and reliability of the analysis;
6) high administrative capacity of the system of indicators, the possibility of their use as a scientific substantiation of managerial decisions;
7) the flexibility of the methodological provisions, their high adaptability to the new conditions of research, in particular, changes in the place of producers or their cooperative associations in the PSC, the modification of strategic management tasks, etc.

7. Conclusions

In the course of the study, the authors substantiated the components of net value added, proved the feasibility of using this indicator to evaluate the performance of agricultural cooperatives, which are non-profit socio-economic institutions, in the production and supply chain. A structural scheme of methodological provisions in the duality of conceptual and methodological bases is developed, the purpose, tasks, and principles of evaluation are substantiated including the following: objectivity and accuracy, systemacity and complexity, efficiency, purposefulness, the priority of economic interests of the state (macrolevel). A system of indicators developed by the authors includes four groups of indicators for estimating volumes and dynamics of net VA, reproductive product profitability, the structure of net value added, the efficiency of material and labour resources use. The use of methodological provisions in comparative analysis of indicators of different links of the PSC allows identifying the flow "gaps" which are the object of selective managerial influence.

The scientific novelty of the research carried out is the improvement of the methodological provisions on the performance evaluation of agricultural producers and their cooperative associations in the production and supply chain, which in contrast to existing methodologies, are based on the four-level system of indicators constructed on the basis of the net value added index, provide for the calculation of performance indicators in nominal and real terms and ratios that allow determining the factors of influence on the dynamics of reproductive profitability indicators and material return. The theoretical significance of the research results is the development of methodological support for the performance evaluation of cooperative formations in the production and supply chain at micro and macro levels, and practical – in the possibility of using the author's methodological provisions by state and regional authorities, producers and their cooperative associations as an analytical basis for making managerial decisions.

Further research prospects in this scientific direction are to expand the system of valuation indicators constructed on the basis of the net value added index, as well as to use methodological provisions developed by the authors to evaluate the performance of not only agricultural but also industrial enterprises in the production and supply chain.

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FORMATION OF INNOVATION-INVESTMENT INTEGRATION STRATEGY FOR INDUSTRY DEVELOPMENT UNDER GLOBALIZATION CONDITIONS

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Abstract. The main conditions of industry sustainable development in the globalization conditions include macroeconomic stability in the national space, competitiveness and the internal and external environment efficiency. Solving the strategic tasks that will ensure the industrial complex development, especially in the global macroeconomic space, essentially depends to a large extent on innovation, investment, and integration activities, representing the priority directions in the international environment transformation context. Scientific engineering and technological progress is the driving force enabling the industry development in the national macroeconomic environment. In this aspect of the globalization transformations context, a particularly important role is given to innovation, investment, and integration processes. *The purpose* of this article is justification of theoretic and methodical bases of forming of innovative-investment integrated strategy for Ukrainian economy's industrial sector development under globalization conditions, aimed at supporting the priority achievement of the strategic orientations of the national economy in the context of the European vector of development, taking into account the influence of the factors of the internal and external macroeconomic environment. *Methodology.* Materials of periodicals, analytical reviews, statistical data, resources of the Internet are the informational and methodological basis of the investigation. The research is based on general scientific and special methods, such as: monographic investigation, generalization, systematization, decomposition, factor analysis, economic-statistical analysis, logical-meaningful modelling. These allowed outlining the basic features and principles of the native industrial economy sector innovative-investment integrated strategy forming under the globalization conditions. *The results.* Innovation-investment integration strategy is a strategic document for the priority development of the industrial sector of the national economy. This is the source of the accumulation of strategic information and management methods for the future sustainable position of the industrial sector of the country. The developed methodical principles of forming an innovation-investment integration strategy for industry development under globalization conditions provide a phased decomposition of the strategic purpose, which provides an opportunity to determine the most effective directions of industry development, taking into account the input and output parameters of the strategy. The strategy allows assessing the export potential of the national economy's industrial sector, to form export-import orientations and an adequate mechanism of foreign economic activity under conditions of the free trade zone development with the European Union countries and other international environment countries. *Practical implications.* The process of forming an innovation-investment integration strategy in the national economy industrial segment will enable the development of appropriate elements of the macroeconomic environment under globalization conditions. *Value/originality.* The strategy elaborates on how strategic management of innovation and investment integration processes in the industry will take place to ensure its effective functioning. Innovation-investment integration strategy allows assessing the export potential of the national economy's industrial sector, forming an export-import strategy and an adequate mechanism of foreign economic activity under the free trade zone development with the European Union countries and other countries of the international environment.

Key words: innovation process, investment process, integration process, strategy, industry.

JEL Classification: F15, F36, L69, M11, O29, O33

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1. Introduction

The innovation process embodies a complex set of scientific and technical, technological and structural transformations running in the innovation process; it is a process of thinking product gradual transformation into the research development result (Grigoriev, 2017).

The innovation process basic characteristic, therefore, shall be the scientific, technical or technological novelty, which will provide the national macroeconomic environment subjects' modern needs.

The investment process is a purposeful systemic process of attracting and using all types of property, financial and intellectual resources that are transferred to the national economic complex's relevant objects in order to create added value and meet the society's social and economic needs.

The integration process represents a purposeful convergence or system interaction between macroeconomic environment's economic units in order to achieve quantitative and qualitative assessment of their activities. Modern integration processes inherent to the international macroeconomic environment have replaced the disintegration processes that negatively influenced the social development.

In the context of strengthening globalization processes, significantly updated are the issues of national high-tech industry sector development investments-and-innovation support with the effective use of material, financial, and intellectual resources. The national economy main advantages are: natural and labour resources availability, a favourable territorial location, considerable research potential, the presence and successful development of industrial segments potential, etc.

In today's conditions, the national environment is the one enabling both domestic and international investors. These recent years, the national macroeconomic environment provides economic growth (gross domestic product is 3.8%), the national economy subjects' effective demand is growing, the domestic consumer market increases, the banking system is stable and developing, the prognosticated national currency rate and inflation index are also increasing. Capital investments show growth of more than 26% in 2018. According to the State Statistics Service of Ukraine, analytical indicators, which characterize the industrial products' manufacturing by main industrial groups for the period of 2014-2018, got values shown in Table 1. These indicators (determined without taking into account the temporarily occupied territory of the Autonomous Republic of Crimea, the Sevastopol city, and temporarily occupied territories in the Donetsk and Luhansk regions) do testify the positive results of transformational changes in the national macroeconomic environment.

In order to prioritize the vector orientation strategic benchmarks achievement, the national macroeconomic environment requires the innovation-investment integration strategy formation for the industrial development in a globalizing environment.

2. Conceptualization of the relationships in the innovation-investment integration strategy

The innovation-investment integration process embodies a complex combination of innovations and investments with the purposeful interaction between the macroeconomic environment's economic units.

The regulatory and legal framework for the innovation-investment integration strategy formation to enable the industry's development in the globalization conditions is based on the Laws of Ukraine "On Innovation Activity" (On innovation activity, 2012) and "On Investment Activity" (On investment activity, 2017). The Law of Ukraine "On Investment Activity" defines the investment activity general legal, economic, and social conditions on the territory of Ukraine. The law is aimed at ensuring equal protection of the rights, interests, and property of investment activity subjects, regardless of ownership type, as well as the effective investments into the national economy, the development of international economic cooperation and integration (On investment activity, 2017).

The investment activity is an objective process, bearing its own purpose and logic, and developing in the corresponding regularity; thus it plays a significant

Table 1

Industrial product manufacture indexes by the main industrial groups, %

Indicator	Years				
	2014	2015	2016	2017	January-September 2018
1	2	3	4	5	6
Industry	89,9	87,0	102,8	100,4	101,8
Average consumption period products	91,6	90,6	102,7	100,2	101,8
Investment products	79,7	85,3	101,7	110,6	106,0
Short-term consumptions products	101,7	89,0	104,4	104,0	98,5
Long-term consumptions products	88,7	80,8	99,7	113,9	100,0
Energy	85,5	81,8	102,4	92,3	102,3

Source: formed on the basis (Official site of the State Statistics Service of Ukraine)

role in the economic units' activity. By its economic component, the investment embodies the shifting from current date material, financial, and intellectual resources consumption for the purpose of obtaining income in future periods.

The Law of Ukraine "On Innovation Activity" defines the legal, economic, and organizational foundations of innovation activity state regulation in Ukraine, establishes the innovation processes stimulation by the state and aims at supporting the Ukrainian economy development in an innovative way. Under this Law, the state support is provided to business entities of ownership forms implementing innovative projects in Ukraine and enterprises of all ownership forms that have the status of innovative ones (On innovation activity, 2012).

Thus, the innovation-investment process begins with the formation of an innovation-investment strategy. The formation of an innovation-investment integration strategy for the development of industry in a globalized environment depends on: political, legal, financial and economic and infrastructure conditions. In Figure 1 we defined the conditions for the formation of innovation and investment integration strategy for the development of industry in a globalizing environment.

The innovation-investment integration strategy is understood as a complex of long-term strategic goals and the choice of the most effective ways to achieve them with respect to the influence of internal and external macroeconomic environmental factors. The innovation and investment integration strategy formation for the industry's development in a globalized environment is a complex management process based on the prediction of certain conditions for the innovation and investment activities' implementation both as to the market environment as a whole and in the context of its individual segments, taking into account the integration orientation. Innovation-investment integration strategy is always formed within the framework of the industry development general strategy, well-agreed with its implementation principles, goals, stages, and timing.

In the global international macroeconomic space, there exists a large number of innovation and investment integration processes' management forms at the appropriate levels of entity management taking into account the segment component. The management is carried out starting from structural subdivisions of economic units to the state as a whole, and the state carries out the targeted regulatory policy under the influence of relevant internal and external factors. The targeted state regulatory policy basic task is to support innovation and investment integration activity in the country's scientific and technical potential development taking into account the current international situation.

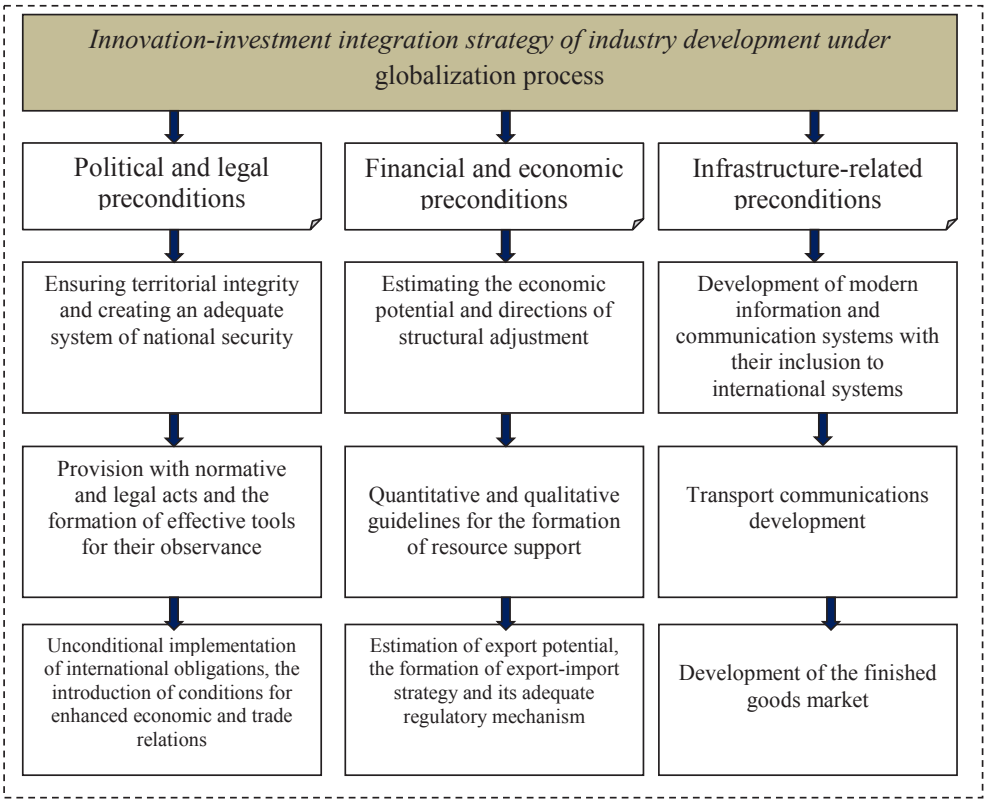

Figure 1. Conditions to form an innovation-investment integration strategy for the industry's development in a globalizing environment

3. Decomposition of the purpose of innovation and investment integration strategy for the industry

The innovation and investment integration strategy's main objective at the industry is to develop its potential. The strategy's main purpose is subdivided into levels and presented in Figure 2.

The decomposition is a process of some research object logical partitioning that allows us to consider any systems consisting of separate interconnected subsystems. Subsystems can also be disassembled into even smaller segments. In theoretical and practical studies, such systems include: concept, principles, tasks, processes, phenomena, etc. The decomposition provides a detailed study of the research object thus representing a system analysis tool used to structure the defined goals, objectives, contradictions, problem issues, relevant decisions, priority development strategies, and other aspects of the functional and structural approach to the existing systems' research analysis or the modern systems synthesis. The outer shape of the decomposition has a schematic look.

The main approaches to the decomposition of innovation and investment integration strategy goal in the industry are: aggregated, differentiated, targeted, detailed, and integration approaches.

The aggregated approach defines the indicators to be achieved as a result of the development of innovation and investment integration strategy implementation. Indicators are aggregated when they are grouped, synthetic, generalized and characterize the industry structural units' development. Aggregated elements in one or another unit may be the following: overall efficiency of asset utilization; fixed assets use intensification and indicators; indicators of working resources use efficiency; indicators of finished products volume increase or decrease and product trading; reserves of production capacities for innovative products development; increasing the finished products competitiveness; indicators and assessment tools as to labour productivity, its reserves, and increasing factors; structure of the industrial products prime cost; indicators of the industrial production profitability; increase in the management system efficiency at all levels; other indicators.

The differentiated approach reveals data per every functional unit: provision process functional-structural model; production process functional-structural model; trading process functional-structural model.

The target approach specifies for each segment the relevant functional and structural models' elements, for example, the production process segments are: the main, auxiliary, and service processes.

The detailed approach reveals the indicators for each part of the relevant segment and evolves the specific information, for example, the finished product quality at all lifecycle stages. It should be noted that the industrial products quality is formed at four stages of its lifecycle: study, design, production, and consumption and, in the first two stages, the highest percentage of the industrial product quality level is formed.

The integration approach ensures the interconnection between the management system individual differentiated elements and functions in the industry. Integration is one of the important efficiency factors as to our country's industry functioning, including

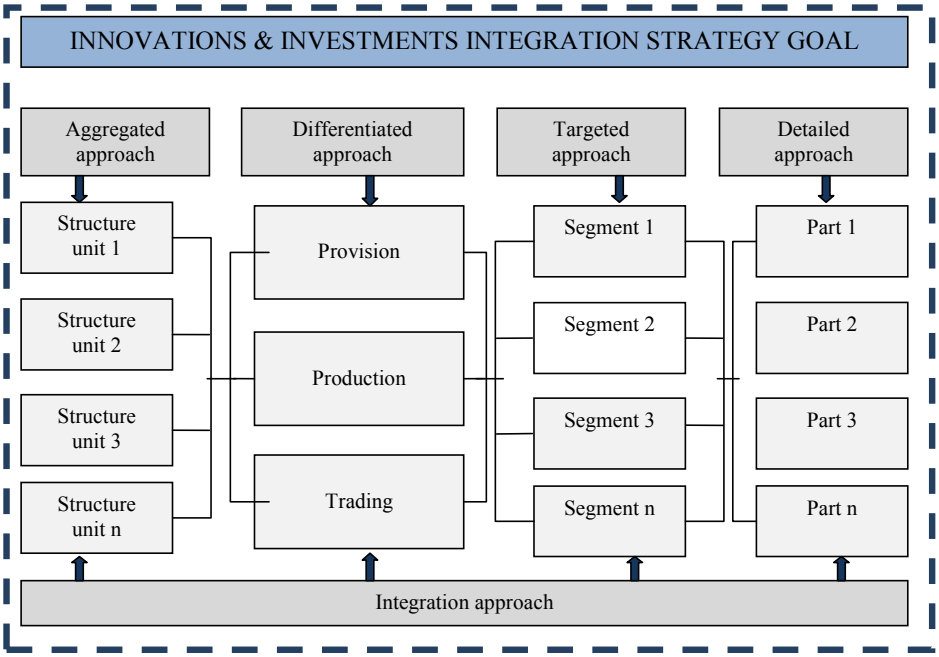

Figure 2. Decomposing the innovation-investment integration strategy goal in industry

its ability to rapid innovations implementation that will ensure the industry innovation and investment integration strategy goal achievement.

The proposed decomposition allows linking the goals and their implementation tools for each structural unit while taking into account the entity's strategic development priority level due to the by goals achieving tools coordination by relevant resources type.

It should be noted that the formation of an innovation-investment integration strategy for industry development under globalization conditions requires appropriate support at the state institutions level, namely: fundamental and applied researches quality-targeting development; a new scientific formation industry specialists training providing; support to strategic innovation and investment projects; support to national and international scientific, technical and technological specialization and cooperation; comprehensive support in the innovative-investment industrial objects (business incubators, technoparks, technopolises, innovation centres)creation and functioning; using financial and economic instruments, creation of a favourable macroeconomic environment that provides innovation and investment activity of the national economy's industrial complex.

In the global scientific environment, the innovation-investment areas' state regulation and support measures are determined by the direct and indirect action influences.

The ratio of state regulation direct or indirect institutional influence is determined by the national macroeconomic environment's state and conceptual foundations based on market principles.

Decision-making in the national economy industrial sector as to the innovation and investment activity relies on the issues related to the choice of alternative options for the industrial enterprises' development in a competitive environment influenced by the relevant factors (political, legal, financial, economic, social etc.).

In the industrial enterprises' innovation and investment integration strategic development study, the mechanism of innovation-investment sphere state regulation with the macroeconomic environment subjects' engagement to the country's economic innovation and investment potential increase is of prime importance. The need for state influence on innovation and investment activity under current conditions is due to factors not inherent to a market situation environment but having an objective significance.

Figure 3 below shows schematically the financial and economic consequences of an innovation and investment integration strategy selection by the national economy's industrial sector.

It should be noted that the innovation and investment activity lack in future periods involves a reduction in income due to non-current assets moral and physical depreciation, deterioration in the process of provision, production, and sale that ultimately calls into question the future functioning of such national economy's industrial sector economic unit.

An active innovation and investment integration strategy provides a gradual increase in revenues to the inter-sectoral investments level, involves the formation and implementation of various innovation-investment projects or programs. An active innovation and investment integration strategy involves the active behaviour of the national economy's industrial sector subjects in the domestic and foreign markets.

A passive innovation-investment integration strategy involves maintaining the industrial enterprises' strategic development unchanged level and thus leads to a lagging behind the inter-sectoral level, in the future periods will have the same consequences.

An efficient innovation and investment integration strategy is associated with the scientific, technical and technological process, implementing fundamentally new technological solutions and creating an innovative

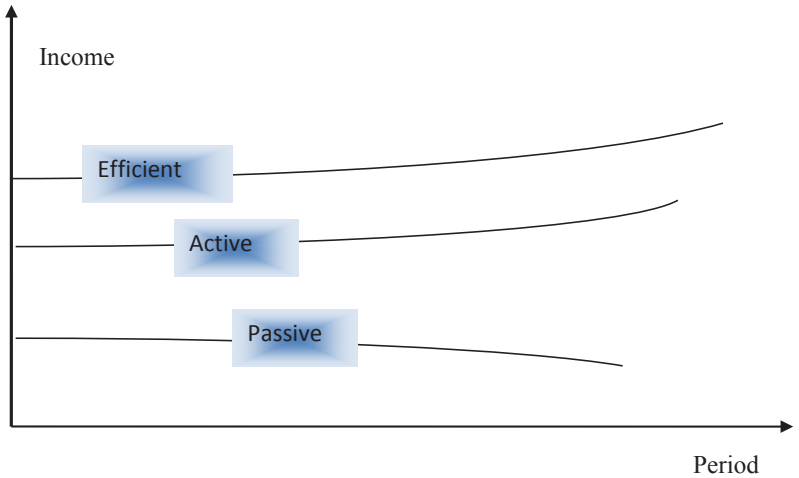

Figure 3. Influence of innovation and investment integration strategy on the national economy's industrial sector incomes

product. The innovation and investment integration strategy elements can be: intangible products; industrial production equipment and processes; industrial infrastructure; modern organizational, technical and technological landmarks of any character; logistic components; innovative product and so on. An efficient strategy involves the effective behaviour of the national economy's industrial sector subjects in the domestic and foreign markets, which will provide the most effective, quantitative and qualitative orientation.

Important and interconnected conditions for innovation and investment activities' implementation by the national economy industrial sector subjects in the market environment should be: availability of free capital or resources from a potential innovator or investor, desire to place free resources on acceptable conditions in the national economy industrial sector; political stability in the country and an adequate national security system; legal security and safety that promote the efficient allocation and movement of capital in all areas.

The innovation and investment activity stages are provided by: industrial enterprises, innovators, investors, subjects of innovation infrastructure, state institutions, regional and local structures.

The identified actors operate at different stages of the innovation and investment process, their activities' purpose and tasks varying. They reflect their own specific interest that causes a lot of innovation and investment integration strategy dimensionality. But the main driving motive of these entities' whole activity as involved in the innovation and investment process is the possibility of increasing value-added and obtaining, on this basis, entrepreneurial results in their specific application areas of activity taking into account the respective risks.

In the innovation-investment integration strategy, the involved subjects' interest coordination requires the identification of conflicting interests' carriers. The scientific research interested subject is the national economy's industrial segment. The capital owner has own special interests that not always coincide with the general motives of the national economy's industrial sector. Intermediate positions between innovators, investors, and industry are occupied by actors of innovation infrastructure, state institutions, regional and local structures.

4. An innovative-investment integrated strategy for industry's development: key features and stages of forming

The innovation and investment integration strategy is formed in the sector of mutual interests' crossing-over between the industrial enterprises and all this process participants. The ability to form a strategy depends on the priority of the partners' mutual interests coordination, the ability to see the innovation-investment object from the strategic position and, first of all, ability to assess the investment attractiveness.

The variety of approaches to the investment and innovation strategy interpretation, as well as the nature of their interconnections, only emphasizes the versatility of the investment-innovation strategy definition (Khustova, 2015).

An innovation-investment strategy is a specific tool for providing a strategy for the national economy's industrial sector growth or stabilization by investing capital in the economic industrial units' effective development, expanded reproduction of non-current assets, the creation of innovations, which in future periods will ensure the competitive advantages formation in the country's industrial sector.

It is underlined that the innovation and investment integration strategy is developed at different levels and takes into account the various components; therefore the following classification of the national economy industrial sector investment-innovation integration strategy is proposed:

- local integration strategy: at the regional level; at the industry level; at the enterprise level;
- national integration strategy: at the inter-sectoral level; at the interregional level; at the industrial subjects' level;
- global integration strategy: at the national level; at the inter-sectoral level; t the interregional level; at the level of industrial enterprises.

It is well-known that macroeconomic growth in the national environment is based on a combination of economic units' performance extensive and intensive indicators. The national economy's industrial sector is of a vectorial importance for the country's sustainable development. The industry represents a priority vector for the value-added creation, thus involved into sectoral and inter-sectoral interconnections, has a significant impact on the activity of the national economy's individual economic units.

In the international macroeconomic environment, the possibility of increasing the industrial products manufactured volume at the extensive factor expense is limited; therefore, priority strategic guidelines for the economy industrial sector effective development acquire modern intensive components: improving quality and productivity. The intensive components also include the innovative activities results that increase the return on fixed assets and working capital and provide priority opportunities for the strategic high-quality growth of the country's industrial sector results.

In Ukraine, the industrial sector accounts for about 31% of GDP, over 19% of the working population in the country are employed in the industry, thus a significant share in its branches structure belongs to the metallurgical segment, machine building, electricity and instrument manufacture. In 2015-2018, observed is a tendency to increase the national economy's industrial sector share in the country's gross domestic product.

Dynamic analysis of the industrial sector innovative activity financing sources and structure in the national economy of Ukraine in 2000-2017 (Table 2) reflects the minimum share of the state in those finances. The given data by indicators are presented without taking into account the temporarily occupied territory of the Autonomous Republic of Crimea, Sevastopol city, and temporarily occupied territories in the Donetsk and Luhansk regions of Ukraine.

According to the State Statistical Service of Ukraine data analytical indicators show that the essential innovative activity financing source in the national economy's industrial sector during 2000-2017 is the industrial activity subjects own resources, which accounts for more than 2/3 of the total volume of expenditures on innovation. The table data indicate that other financing sources do not have a significant impact on the industrial enterprises innovative activity. Foreign investments amount is almost equal to budget financing.

The initiation of any activity kind in the national economy industrial sector is associated with significant capital expenditures in the form of financial, material, and intangible assets necessary for: analytical study of the future economic activity conditions; designing the national economy's industrial segment activity provision process economic cycle; designing the production process economic cycle; designing the commodity products' marketing economic cycle; formation of a management system, i.e. creation of all services at an economic entity, all subsystems and communications between them, including processes that ensure its functioning; formation of a monitoring and control system in order to get and transmit true, unbiased, and complete information to those who finance innovation and investment integration strategy.

Reliable information provides an opportunity to evaluate past, current, and future events, allowing their strategic assessment.

Achieving the goal of the national economy's industrial sector sustainable development depends in many respects on the integration strategy of the country's macroeconomic development. After all, the industrial sector, on the one hand, creates the society life material basis, and on the other, the parameters of economic influence on the internal consumer environment are laid, therefore.

The processes of intra-industry and inter-sectoral integration confirm virtually all the country's economy segments. The integration processes at the sectoral level are carried out in both vertical and horizontal direction. Vertical integration in the industrial sector determines certain economic processes centralization mechanisms in its subjects' activities. But the vertical integration is based on the economic processes' production-technological indivisibility in the industrial sector of the economy.

Integration processes at the sectoral level are among the most important factors of the efficient functioning of the country's industry economic units.

Table 2

Sources and structure of the national economy's industrial sector innovative activity financing

period	Total expenses amount, mln UAH	Including financing sources							
		own		State budget		Foreign investors		Other sources	
		mln UAH	%	mln UAH	%	mln UAH	%	mln UAH	%
1	2	3	4	5	6	7	8	9	10
2000	1757,1	1399,3	79,64	7,7	0,44	133,1	7,57	217	12,35
2001	1971,4	1654	83,90	55,8	2,83	58,5	2,97	203,1	10,30
2002	3013,8	2141,8	71,07	45,5	1,51	264,1	8,76	562,4	18,66
2003	3059,8	2148,4	70,21	93	3,04	130	4,25	688,4	22,50
2004	4534,6	3501,5	77,22	63,4	1,40	112,4	2,48	857,3	18,91
2005	5751,6	5045,4	87,72	28,1	0,49	157,9	2,75	520,2	9,04
2006	6160	5211,4	84,60	114,4	1,86	176,2	2,86	658	10,68
2007	10821	7969,7	73,65	144,8	1,34	321,8	2,97	2384,7	22,04
2008	11994,2	7264	60,56	336,9	2,81	115,4	0,96	4277,9	35,67
2009	7949,2	5169,4	65,03	127	1,60	1512,9	19,03	1140,6	14,35
2010	8045,5	4775,2	59,35	87	1,08	2411,4	29,97	771,9	9,59
2011	14333,9	7585,6	52,92	149,2	1,04	56,9	0,40	6542,2	45,64
2012	11480,6	7335,9	63,90	224,3	1,95	994,8	8,67	2925,6	25,48
2013	9562,6	6973,4	72,92	24,7	0,26	1253,2	13,11	1311,3	13,71
2014	7695,9	6540,3	84,98	344,1	4,47	138,7	1,80	672,8	8,74
2015	13813,7	13427	97,20	55,1	0,40	58,6	0,42	273	1,98
2016	23229,5	22036,0	94,86	179,0	0,77	23,4	0,10	991,1	4,27
2017	9117,5	7704,1	84,5	227,3	2,49	107,8	1,18	1078,3	11,83

Source: formed on the basis (Official site of the State Statistics Service of Ukraine)

In the conditions of international competition intensification, intra-industry integration provides the opportunity to manoeuvre the entities' assets in order to effectively use them.

The integration aspects of innovation and investment strategy are characterized by the following:
- joint research and applied research;
- ability to create or improve competitive industrial technologies, commodity products, etc.;
- most rational use of scientific and technical cooperation results;
- efficient allocation of resource support used in industrial activities;
- high adaptability and flexibility at changing conditions in the internal and external environment;
- quantitative and qualitative orientation on the national economy's industrial sector segments activity results;
- sharing and commercialization of applied research and development results;
- implementation of innovation and investment activity priority directions;
- joint creation of innovation and investment infrastructure;
- mutual support in the financial and material relations between economic units in the industry.

The integration processes' positive influence on the national economy's industrial segment development lies in the fact that the subjects do provide the innovation-investment component application in their economic activity that ultimately positively affects the effective functioning of the country's macroeconomic environment.

In today's transformational and aggressive conditions, the innovation and investment technologies development and implementation, the creation of appropriate facilities and equipment are associated with significant costs, excessive for most of the national economy's industrial segment subjects.

Sources of innovation and investment integration strategy financing are defined in Figure 4.

The usual practice in implementing innovation-investment industrial projects is to attract external national and international capital in any form. In accordance with the current legislation, the financing sources for the innovation and investment integration strategies' implementation may be: enterprise's own or borrowed resources; funds of individuals and legal entities; resources from the State Budget of Ukraine and local territorial communities budgets; resources of specialized state and municipal innovative financial and credit institutions and other sources.

The attracted resources use efficiency at the innovation and investment integration strategy objects in the national economy's industrial segment is confirmed by the results of industry economic activity, which ultimately integrate into the financial, economic, social, and environmental effects.

In practice, the innovation and investment integration strategies funding sources are closely interconnected and used in a complex while resource mobilization process to form a common strategy for the national industrial entity's development. The strategy innovation-investment regulation, rational by the results and balanced by the flexibility degree is impossible without regulatory and normative support.

Legal regulation as to the innovation and investment activity is carried out, firstly, by general civil and economic legislation and, secondly, by special laws regulating innovation and investment activity.

The process of forming the national economy's industrial segment innovation and investment integration strategy embodies a series of interconnected stages, which are presented in Figure 5.

The formation of innovation and investment activity strategic goals in the national economy's industrial sector is carried out at the innovation and investment integration

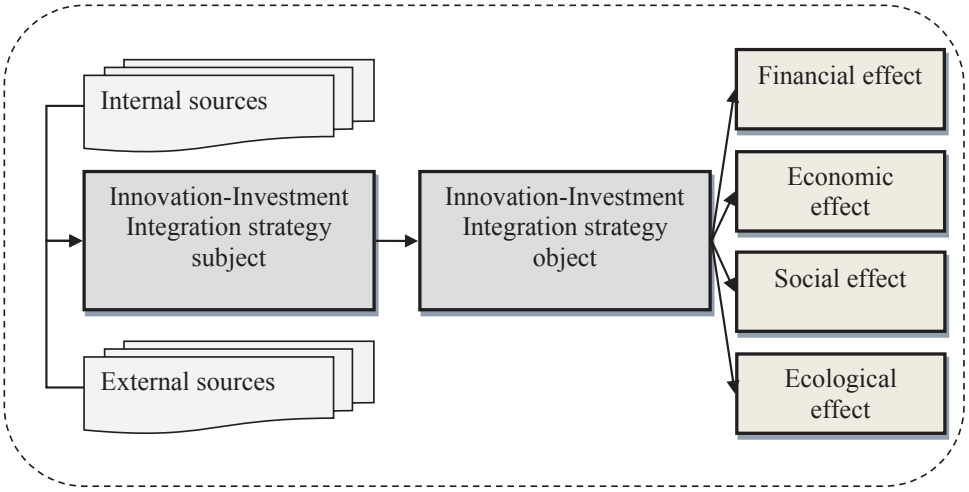

Figure 4. Innovation-Investment Integration strategy financing sources

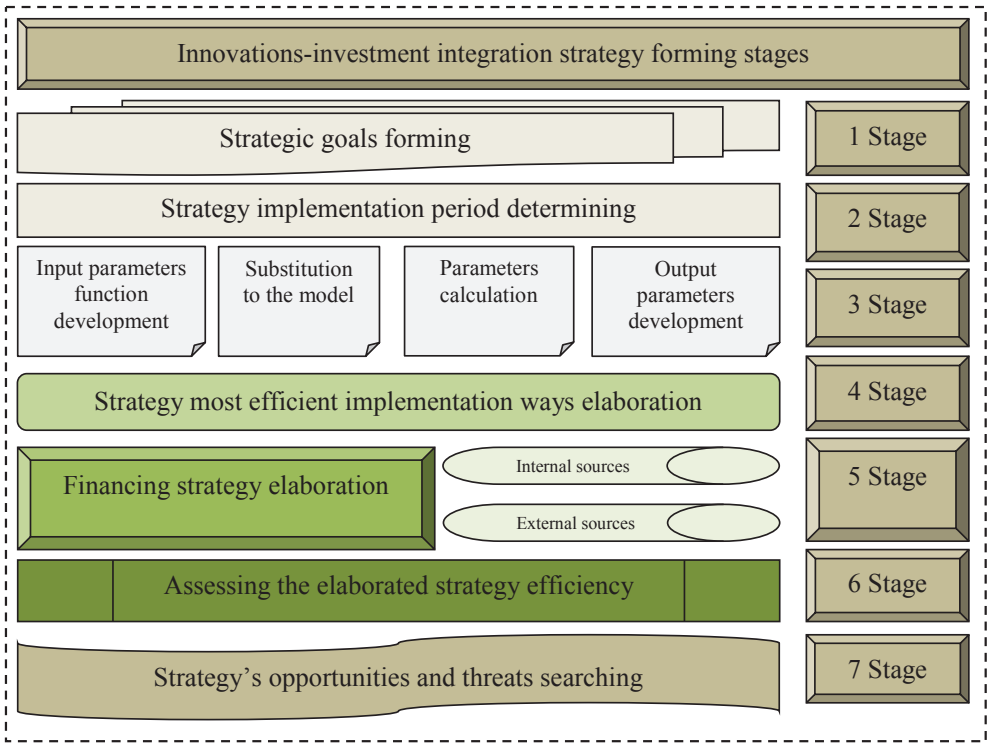

Figure 5. Forming the national economy's industrial segment innovation and investment integration strategy: process stages

strategy elaboration first stage and should proceed, first of all, from the economic subject development strategy goals system: providing the own capital growth; increase in the level of income from innovation and investment integration activities; changes in proportions between real and financial investment in industry; change in capital investments' technological and reproductive structure; change in the intra-industry and branch orientation of innovation-investment programs; society socio-economic needs satisfaction.

The second stage defines the general period of innovation and investment integration strategy formation, which depends on the following conditions:
- predictability of the national economy's development as a whole and innovation and investment environment particularly;
- the safe orientation of innovative, investment, and integration processes;
- development strategy period and its duration;
- economic entity sectoral affiliation and its size.

This strategy development stage involves establishing the sequence and timing to achieve individual goals and to address identified strategic objectives. In the innovation-investment integration strategy targeted formulation process, the internal and external synchronization of actions in time is provided. The strategy internal synchronization involves coordinating in time the implementation of certain areas of innovation, investment, and integration processes, as well as the necessary support creation. The strategy's external synchronization involves coordinating in time the innovation-investment integration strategy implementation with the industrial entity development strategy, as well as with predicted changes in the macroeconomic environment.

At the third stage, the logic-mathematical apparatus is used that characterizes the industrial development innovation-investment integration strategy input and output parameters.

At the following two stages, the development of the most effective ways to implement the innovation and investment integration activities' strategic objectives takes place.

The innovation and investment integration activity strategic directions development is based on the specified activity goals system. In the development process, the following issues are consistently addressed:
- identification of a priority innovative project;
- determination of the ratio for any investment forms in the developed strategy period;
- definition of horizontal or vertical orientation integration paths;
- substantiation of innovation and investment integration activity sectoral branch orientation;
- definition of innovation and investment integration activity national and international aspects.

It should be noted that all directions and forms of innovation and investment integration activity in the

national economy industrial segment are implemented via the intermediary of the appropriate resource provision. Resource provision strategy is an essential element not only in innovation and investment strategy but also in financial one. This strategy formation is intended to ensure uninterrupted innovation and investment integration activities in the foreseen parameters, financial resources efficient use, and maintaining the industry entities' financial stability in future periods.

Resource support is carried out in the following sequence:
- forecasting needs in the total amount of resource support;
- search for internal financing sources;
- search for external financing sources;
- substantiation of methods for financing innovative and investment projects;
- resource structure optimization;
- creating a resource support model.

The developed innovation and investment integration strategy effectiveness assessment is carried out at the sixth stage. The assessment is based on the following basic criteria:
- innovation and investment integration strategy consistency with the national economy industrial sector subject development strategy, consistency and correlation of goals, objectives, principles, directions, and stages of implementation between the identified strategies;
- innovation and investment integration strategy internal balance, to determine how consistently the strategic goals and directions of innovation and investment integration activities are mutually agreed;
- the sequence of innovation and investment integration strategy tasks;
- consistency with the innovation and investment integration strategy external environment estimated as far as it is in line with the predicted changes in economic development, investment climate in the national and international macroeconomic environment;
- the coherence of the innovations and investments market conditions;
- strategy application taking into account the available resources potential, assessment of potential opportunities for the industry as to resources formation at the expense of own sources;
- innovation and investment integration strategy effectiveness is based on determining its application effectiveness, taking into account financial, economic, social, and environmental outcomes.

It should be noted that evaluation requires appropriate methodological support. In today's conditions, it is possible to apply here the strategic assessment methodology at both micro and macro levels.

At the last stage, research is being carried out on the innovation and investment integration strategy opportunities and threats. For a successful implementation of the strategy, the national economy industrial sector subjects should be able to predict the difficulties that may arise while its implementation in subsequent periods, therefore, it is necessary to focus on the threats and opportunities identification. Instrumental support at this stage is such: SWOT analysis, BCG matrix, Ansoff product matrix, SPACE analysis, GE/McKinsey matrix, national products, technologies, organization lifecycle diagrams, Porter's graph "profitability – market share", curve experience, value chain, etc. According to the study results, the innovation-investment integration strategy strengths and weaknesses are determined in real time. The innovation and investment integration strategy strengths and weaknesses to the same extent as threats and opportunities determine the real conditions for its implementation.

Thus, the national economy industrial sector cannot operate effectively under political instability conditions, in the absence of an adequate security system, at the market environment instability and the lack of well-developed innovation and investment integration strategy in the context of the national macroeconomic environmental development European vector. The strategy elaborates on how strategic management of innovation and investment integration processes in the industry will take place to ensure its effective functioning. Innovation-investment integration strategy allows assessing the national economy's industrial sector export potential and forming an export-import strategy, as well as an adequate foreign economic activity mechanism in the context of developing a free trade zone with the European Union countries and other countries of the international environment.

5. Conclusions

Constant transformational changes in the macroeconomic environment where the industry operates encourage the use of special mechanisms for the innovation and investment integration strategy implementation. The lack of a well-thought-out strategy, periodically adjusted to the changing internal and external environment is a significant disadvantage, which reflects the overall industrial development strategy weakness, which in turn complicates the use of modern advanced competitive technologies, innovative products manufacturing, adopting administrative, industrial, and commercial organizational and technological solutions, which significantly improve the economic activity structure and quality.

The innovation-investment integration strategy is a strategic document for the national economy's industrial sector priority development. This is the source of the strategic information and management methods accumulation for the future sustainable position of the national industrial sector.

The methodical principles on elaborating an innovation-investment integration strategy for the industry's

development in a globalizing environment include a phased decomposition of the strategic goal, using aggregated, differentiated, targeted, and detailed approaches, which provides the opportunity to determine the most effective directions of industry development, taking into account the strategy input and output parameters.

The strategy allows assessing the national economy industrial sector export potential, forming export-import orientations and an adequate mechanism of foreign economic activity when establishing and developing a free trade zone with the European Union and other countries of the international environment.

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REMUNERATION OF PUBLIC SERVANTS IN THE FEDERAL REPUBLIC OF GERMANY

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Abstract. *The aim of the article* is to determine the specificities of the remuneration of civil servants in the Federal Republic of Germany. *The subject of the study* is the remuneration of civil servants in the Federal Republic of Germany. *Methodology.* The study is based on the use of general scientific and special-scientific methods and techniques of scientific knowledge. The dialectical method enabled to interrogate the development of the institution of the remuneration of civil servants in the Federal Republic of Germany. The comparative legal method enabled to compare doctrinal approaches to this issue. The system-structural method enabled to determine the elements of the remuneration of civil servants of the Federal Republic of Germany. Methods of analysis and synthesis helped study certain parts of this institute to formulate further conclusions about its most optimal functioning. The logic-semantic method was used to determine the content of the principles of "ensuring a decent standard of living for a public servant," "equality of public service actors" and "allowance/supplies". The normative-dogmatic method enabled to analyse the content of legal regulations of the domestic legislation and the legislation of the Federal Republic of Germany on the issue. *Practical implications*. The determination of the specificities of the remuneration of public servants in the Federal Republic of Germany enabled to make recommendations for improving the remuneration system of this category of employees in Ukraine, as well as identify problematic issues that require further consideration and research. *Relevance/originality.* The author's definition of the concept of "remuneration of public servants" is proposed and the specific features of this institute, insufficiently studied before, are analysed. The article analyses the specificities of the remuneration of public servants. Their list is determined and the content of each of them is disclosed. The specificities of the remuneration of public servants are substantiated in comparison with other categories of employees. The study of the positive experience of Germany enabled to suggest: to adopt a special legal regulation on the remuneration of public servants in Ukraine, that is, the Law of Ukraine "On Remuneration of Public Servants"; to provide in the norms of the Law of Ukraine "On Public Service" the allowances for the professionalism of a public servant; to provide public servants with the opportunity to carry out another paid activity subject to the special permission of the head of a state body.

Key words: remuneration, labour, public servant, Germany, labour legislation.

JEL Classification: J32, R23

1. Introduction

Since the proclamation of Ukraine's independence, the state policy on legal regulation of the activities of public servants has been focused on active transformations and the formation of fundamentally new mechanisms, different from those inherent in the Soviet system. The regulatory framework has been undergoing constant formation and improvement, the special legislation in this area has been adopted and repeatedly amended, the implementation of the relevant legal relationships by subjects involved has been regulated, modernization of mechanisms has been implemented, etc. In most developed countries, the public service was radically reformed in the 70-80s of the last century, and today they built a professional and high-quality public service that is an example for Ukraine. Therefore, in order to implement further reform of the public service in our state, it is important to analyse the positive foreign experience and establish areas for its use in domestic conditions.

One of these areas should be the remuneration of public servants. In the context of European integration processes in our state, the involvement of high-skilled personnel in the public service is complicated by the insufficient level of financial maintenance for public servants. The inability to compete with the private sector of the economy in terms of employment leads to demotivation on the part of the population in

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employment in public administration. Today, Ukraine has a number of social, economic, and political problems. Therefore, the use of purely economic instruments to address the existing problems of the remuneration of public servants is not enough at present, as a radical increase in salaries is impossible in this area. At the same time, it would be expedient to develop the remuneration system based on foreign experience, on the one hand, to satisfy the interests of employees, and on the other hand, to be within the capabilities of the state. Therefore, the scientific analysis of other countries' experience in providing the remuneration of public servants will contribute to the formation of a public service policy in Ukraine that will maximize the effectiveness of protecting the rights and interests of all working citizens of this category. The relevance of the study on this issue is verified by the current improvement of legal regulation in many spheres of domestic social life following the model of more developed countries. Therefore, it would be advisable to further reform the remuneration of public servants of Ukraine on the basis of the positive experience of other states due to the evident interrelation between the remuneration of public servants and the public service efficiency, because the latter depends on the quality of staffing of the institute.

2. Literature review

The topic of public service functioning in foreign countries is regularly discussed by domestic experts. It should be noted that certain issues of foreign experience of legal regulation of civil servants' performance were analysed by such scholars as: V. B. Averianov, V. D. Bakumenko, Yu. P. Bytiak, N. O. Bohdanova, V. D. Bondar, A. O. Holovachova, T. O. Horetska, S. D. Dubenko, M. I. Inshyn, Yu. Yu. Kizilov, A. V. Kirmach, Yu. V. Kovbasiuk, L. M. Kornuta, I. P. Lopushynskyi, V. Ya. Malynovskyi, O. Yu. Obolenskyi, V. P. Tymoshchuk and others. However, in the legal doctrine of our state, most works devoted to the experience of other states are purely informative. Meanwhile, tangible proposals for the implementation of foreign experience in domestic conditions are mostly not provided, which determines the expediency of such a study.

3. Main material

Further development of the remuneration of public servants and its meeting the European standards of legal regulation is impossible without studying and considering the experience of foreign countries. In our study, the experience of European states is highlighted that is important in the context of Ukraine's European integration. Analysing European states' experience, which is under consideration in many works of domestic scientists, the legal regulation of the remuneration of civil servants in the Federal Republic of Germany should come first. The relevance of analysing the experience of this particular state is due to the following factors:

1) as noted in scientific works, in Prussia, the professional state service was one of the first in Europe (Lopushynskyi, 2011), and hence, today it is one of the most developed;

2) the Federal Republic of Germany is one of the leading countries of the European Union, and therefore, in the context of the European integration course of Ukraine, the experience of such states is one of the top priorities for the study;

3) legal regulation of public service in the Federal Republic of Germany is widely considered in the domestic scientific literature; however, tangible proposals to improve the remuneration of public servants on the basis of German experience are absent;

4) the Federal Republic of Germany has an extensive system of legal regulations on this issue.

In Germany, since the post-war period, there is no concept of "state service" (Staatdienst), because the term "public service" (offentliches Dienst) is in practical and scientific use (Lopushynskyi, 2011). The issue of legal regulation of the activities of civil servants in the Federal Republic of Germany is provided for by several laws, but the main ones are the German Constitution of May 23, 1949 (Osnovnoi zakon Federatyvnoi Respubliki Germanii), Federal Law "On Officials (Public Servants)" as of February 27, 1985 (Pro chynovnykiv (sluzhbovtsiv)) and the special Federal Law "On Official Salaries of Public Servants" as of May 23, 1975 (Bundesbesoldungsgesetz. Ausfertigungsdatum). T.O. Horetska argues that particularly, the role of the latter should be considered because the public service system in the Federal Republic of Germany is formed on the main principle to ensure an appropriate standard of living for a civil servant (Horetska, 2009). Considering this principle is important, because in the current Law of Ukraine "On Public Service" no. 889-VIII as of December 10, 2015 (Pro derzhavnu sluzhbu), this principle is absent.

In the context of the issue under the study, in the Constitution of the FRG of May 23, 1949 (Osnovnoi zakon Federatyvnoi Respubliki Germanii), Article 33 provides for the principle of equal access to any public office. It proclaims that no one may be prejudiced because of his adherence or non-adherence to a confession, ideology or affiliation with political parties, besides managerial structures of sectors, where women are inadequately represented, give priority to equally qualified female candidates. In comparison with the provisions of the Constitution of Ukraine (Konstytutsiia Ukrainy), it should be noted that: first, in the Basic Law of our state, issues related to the public servant professional performance are regulated concerning all employees without exception, not separately; and second, the regulation of certain issues, which domestic

scientists consider to refer to "European standards" (gender issues and issues of religion), are ensured. Therefore, in the remuneration of public servants, this principle manifests itself in establishing equal pay for all public servants, regardless of gender, religious beliefs, outlook or affiliation with political parties. At the same time, the salaries of civil servants in the Federal Republic of Germany are influenced by other factors identified by the legal regulations previously listed. In addition, in the Federal Republic of Germany, the constitutional basis for employee remuneration is the principle of maintenance: one of the basic principles of the official status while in office (Konstytutsiia Ukrainy). In fact, the state pays not for individual employee's work done but compensates for their service as a whole. Remuneration necessarily corresponds to the occupied position of the person and it ensures that civil servants are able to devote themselves entirely to their duties since only a financially independent official can selflessly work for the state (Lopushynskyi, 2011). Salaries of officials are calculated, depending on the office and on the length of time spent in the office, taking into account their age and peculiarities of the work performed, however, such issues are not regulated by the Basic Law of the Federal Republic of Germany, but by acts of special legislation.

In Germany, similarly to Ukraine, a special sectoral legal act, the Federal Law "On Officials (Civil Servants)" as of February 27, 1985 (Pro chynovnykiv (sluzhbovtsiv)), was adopted to regulate the labour rights of civil servants. In the Federal Republic of Germany, in the context of the remuneration of civil servants, the first notable feature is their possible division into two types: those who receive salaries and those who do not receive. According to I. P. Lopushynskyi, the latter include "honorary officials" who predominantly have a civilian profession and who are assigned to special positions without pay or the right to claim special social welfare provisions. Honorary officials include jurors, elected consuls, etc. (Lopushynskyi, 2011). The specificities of the calculation and determination of the rate of the remuneration of civil servants in the Federal Republic of Germany are provided for in regulations of another legal act adopted on this issue.

Therefore, primarily, the Law of the Federal Republic of Germany "The Civil Servants' Remuneration Act" as of May 23, 1975 (Bundesbesoldungsgesetz. Ausfertigungsdatum) provides for the right of civil servants to a salary. The remuneration of officials consists of the basic salary, local supplements, office allowances, as well as other additional payments that are provided for quite a lot (for example, child allowance, performance bonuses and performance allowances, special supplementary payments depending on the conditions of the labour market). All salary related issues are governed by a common legal framework and are valid for federal, county, and community officials.

According to T. O. Horetska, in the Federal Republic of Germany, on the basis of this legal act, there are four pay scales of remuneration applicable to various professional groups of civil servants: 1) civil servants pay scales A and B govern the remuneration of civil servants, who are members of the government, and for military personnel; 2) pay scale W is for professors at higher education institutions; 3) pay scale R is for judges and public prosecutors (Horetska, 2009). Moreover, the pay scale A assigns 16 grades, B contains 11, W includes 3, R has 10 grades and so on. In other words, in the Federal Republic of Germany, various factors influence calculating the rate of official salaries. To compare, it should be considered that part 2 of Article 50 of the Law of Ukraine "On Public Service" no. 889-VIII as of December 10, 2015 (Pro derzhavnu sluzhbu), determines that the salary of a public servant in Ukraine consists of: 1) a salary; 2) allowances for the length of time spent in office; 3) an allowance for the grade of a public servant; 4) recompense for additional workload due to the performance of duties of a temporarily absent public servant in the amount of 50 percent of the official salary of a temporarily absent public servant; 5) recompense for additional workload in connection with the performance of vacant position duties of public service at the expense of saving the salary fund for the corresponding position; 6) bonuses (in case of assigning). In Ukraine, the Resolution of the Cabinet of Ministers of Ukraine "Issues of Remuneration of Employees of State Bodies" no. 15 as of January 18, 2017, was adopted (The Cabinet of Ministers of Ukraine). Nevertheless, it provides for the main criterion for the differentiation of the remuneration of public servants such as the "salary group", which depends on the position of the public service (head, deputy head, expert, specialist, etc.). Therefore, legal regulation of calculating remuneration is much more detailed in the Federal Republic of Germany.

Considering allowances stipulated by the German Federal Law "On Salaries of Civil Servants" as of May 23, 1975 (Bundesbesoldungsgesetz. Ausfertigungsdatum), the family allowance should be reflected. Thus, the specified legal act establishes two levels of additional payments, which depend on the family status of civil servants. The first level is for married, widowed, divorced civil servants, who have a duty of maintenance to ex-husband/wife. The second level is for civil servants entitled to the general statutory child benefit. Other allowances related to the family status of civil servants depend directly on the number of children in the family.

T. O. Horetzka has carefully considered allowances of civil servants. The scientist highlights that after 15 years in the public service, the official salary of a civil servant ceases to increase, which prompts civil servants, who have reached the age limit for the length

of time spent in the office, to retire or seek employment in the private sector. In this case, the amount of the bonus depends on the performance and is evaluated according to the following criteria: 1) performance (quality and usefulness, timeliness of orders execution, load, efficiency); 2) expert knowledge; 3) methods of work (level of autonomy during performance, initiative, ability to express in writing and verbally their thoughts, competencies demonstrated, orientation to the provision of services); 4) social qualities (responsibility, reliability, ability to work in a team, conflict resolution); 5) leadership (ability to organize work, instruct and coordinate, delegate authority, motivate and maintain) (Horetska, 2009). Therefore, not only subjective but also professional qualities affect the amount of the remuneration of civil servants in the Federal Republic of Germany. In this aspect, the system of bonuses in a given state is similar to Ukrainian but is considerably detailed and includes more criteria.

However, I. P. Lopushynskyi argues that in the context of the remuneration of civil servants, the most specific feature of German legislation is a secured right of civil servants to another paid activity, for example, for activities in associations, institutions, enterprises with public-owned capital, or activity in international associations. This right implementation is subject to the special permission of the head of a state body (Lopushynskyi, 2011). However, this provision seems ambiguous. On the one hand, a civil servant does not focus entirely on his direct duties and objectively cannot perform them flawlessly. On the other hand, the right to additional legal earnings removes a part of the responsibility from the state for the maintenance of public servants. That is, under the economic crisis in Ukraine, our state can allow public servants to keep themselves and their family members at their own expense. This may cause a conflict of interest between a public authority or a local government, in which a public servant' office is, and his/her other place of employment. However, in this context, it should be emphasized that in the Federal Republic of Germany a special permit from the head of a state body is necessary. That is, the law provides for control preventing intersection of the position in associations, institutions or enterprises, in which the civil servant works concurrently, with the functions of the relevant state body. Therefore, in such cases, the possibility of using the official position is minimized.

Therefore, based on the study carried out, **the potential areas of using the positive experience of the Federal Republic of Germany in domestic law regarding the remuneration of public servants** can be suggested:

1. On the example of the experience of the Federal Republic of Germany, it is appropriate to adopt a special legal regulation on the remuneration of public servants: the Law of Ukraine "On Remuneration of Public Servants." This will provide a much more detailed regulation to the relevant legal relationships. Regarding the structure of this legal regulation, based on the Law of the Federal Republic of Germany "On Salaries of Civil Servants" as of May 23, 1975 (Bundesbesoldungsgesetz. Ausfertigungsdatum), it will include the following sections: "general provisions", which will determine the structure of remuneration, the basic terminology in this sphere, the principles of remuneration, etc.; each subsequent section should be devoted to the specifics of remuneration of each category of public servants in accordance with the provisions of paragraph 2, Article 3 of the Law of Ukraine "On Public Service" no. 889-VIII as of December 10, 2015 (Pro derzhavnu sluzhbu). The regulation of specific allowances should be under special legislative consideration. In particular, based on the experience of Germany, such allowances can be family ones, depending on the marital status or the number of children. The rate of official salaries is expedient to regulate by law because they are constantly changing due to an unstable national economy.

2. To provide for in the Law of Ukraine "On Public Service" no. 889-VIII as of December 10, 2015 (Pro derzhavnu sluzhbu), public servant performance bonuses. In order to implement this, part 2 of Article 50 of this legal regulation should be amended by adding another sub-clause:

"The salary of a public servant consists of:

… 7) performance bonuses."

Moreover, in this context, article 52 should be added with another part of the following content:

"…The performance bonus is established by the head of a public service to public servant upon the submission of his/her direct supervisor according to the following criteria: professional performance; expert knowledge; methods of work; social quality; leadership."

3. Since the economic situation in Ukraine is unsatisfactory today, in the Law of Ukraine "On Public Service" no. 889-VIII as of December 10, 2015 (Pro derzhavnu sluzhbu), it is quite reasonable to provide public servants with the possibility to carry out another paid activity subject to the special permission of the head of a state body.

For this, Section II "Legal status of a public servant" of this legal regulation should be added with the article "The right to another paid activity" as follows:

"Article ... The right to another paid activity.

1. A public servant has the right to another paid activity that will not have a negative impact on the image of the state body and trust in the authorities and will not endanger the constitutional order, territorial integrity and national security, for the health and rights and freedoms of other people.

2. Permission for another paid activity is provided for by the head of the public service by issuing an order".

4. Conclusions

Therefore, the model of the remuneration of civil servants in the Federal Republic of Germany is similar to the Ukrainian one. Significant differences involve much more perfect regulation of issues related to salaries of civil servants, a much more developed system of allowances to the basic salary, as well as the adoption of a special legal act devoted exclusively to the issue of the remuneration of civil servants. Therefore, in general, the domestic institution of the remuneration of public servants is currently regulated at a fairly decent level, and potential ways of improvement should be focused on the detailing of existing provisions. The following features of the remuneration of civil servants in the Federal Republic of Germany should be distinguished: 1) the adoption of a special legal act, the Federal Law "On Salaries of Civil Servants" as of May 23, 1975; 2) a special category of civil servants who do not receive salaries at all; 3) the ability of civil servants to carry out another paid activity; 4) the right of civil servants to more allowances to the basic salary.

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REALIZATION OF THE RIGHT OF REBELLION: FROM THE MANIFESTATION OF DEMOCRACY TO A CRIME AGAINST THE STATE

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Abstract. *The objective* of the article is to identify, describe, and explain the grounds and conditions for realizing the right of rebellion, delimitation of the relevant democratic procedures from anti-state crimes. The main *results of the research* are that we have established the liberal and democratic principles for the realization of the right of rebellion. It has been established that it can be realized only on the grounds of the extreme necessity in restoring the rule of law, that is, while having an exclusively criminal and preventive purpose. We have also discovered that both a democratic procedure of realizing the right of rebellion can be solely considered on condition of sufficient justification, proof of the long ineffectiveness of other means of influencing the criminalized apparatus of the state, in particular judicial ones. It has been substantiated that the essential condition for the realization of such a right is the critical level of nonconfidence to the personnel of the highest agencies of state power in the overwhelming majority of the population, as well as the actual impossibility to apply (implement) the statutory forms of influence on their personnel. It is mandatory to consider the requirement of ensuring national security on the basis of a scientifically grounded criminological forecast of the deployment of mass resistance, taking into account the probable reaction to it by the subjects of international law. Thus, the realization of the right of rebellion should be non-violent. In all other cases, there is a criminal seizure of state power. *The applied value* of the research is the fact that due to the developed system of grounds and conditions for realizing the right of rebellion, the latter, as it is, may be delimitated from political criminal practices aimed at dismantlement of the Constitutional statehood, the seizure of state power. The results of the research may also be taken into account by political actors, as well as law enforcement agencies, courts while criminological substantiation, prediction of mass resistance measures, and legal assessment of such actions. *Value/originality*. The authors of the work have improved the criminological vision of the movement of mass resistance, which can take place both in the form of the realization of the natural right of rebellion and in the form of anti-state crimes. The use of these developments can be useful in the retrospective legal assessment of the situation of mass protests, forms, means, and consequences of responding to them by the authorities, preventing abuse of the right of rebellion and related crimes.

Key words: the right of rebellion, seizure of state power, grounds, conditions, prevention of crimes, cessation of criminal activity.

JEL Classification: K19, H56

1. Introduction

The origin and establishment of the post-Soviet political and economic space of an independent state of Ukraine, as well as other former union republics, took place and occurs in rather specific, historically unconventional conditions related to a radical change of not only the political system, but also of the ideological principles of social development, system of management. The direct or indirect integration of organized criminal gangs with political institutions was one of the peculiarities of this process, which significantly influenced the further genesis of all spheres of sociodynamics without any exception. As a result the commercial, criminal basis in its essence was firmly established in the structure of the latter, which largely determines the real direction of the functioning of a large part of the state apparatus, and which has little in common with the implementation of high social standards, the liberal and humanistic

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philosophy of domination in the whole. In such circumstances, the threat of initiation of mass protest actions of anti-criminal nature seems quite legitimate. The indicated circumstance allows including the issue about the grounds, conditions for the realization of the right of rebellion in the criminological perspective of the analysis to the category of **urgent** theoretical and practical problems.

The objective of the article is to provide a scientific description and explanation of the grounds and conditions for realizing the right of rebellion, its delimitation from the criminal seizure of state power.

The empirical basis of this research was the statistics, expert assessments of the diplomatic service employees of Ukraine, the Security Service of Ukraine, as well as the results of the non-included sociological monitoring of the mass protest movement in Ukraine during November 2013 – February 2014, content-analysis of reports in mass media and communications.

2. The right of rebellion as a mechanism of restraint of "Leviathan"

T. Hobbes, in his world-famous work, "Leviathan" (Hobbes, 2016), extensively argued the reasons for a social contract to delegate the right to legitimate violence to a "man-made divinity" and, finally, a sovereign one – for the state. According to the idea of the thinker, the latter should apply legitimate, impersonal violence (and therefore – coercion) as a result of sublimation of interpersonal violence. However, the construction of justice and the legitimacy of coercion collapse exactly at a time, when there is subjectification, appropriation of powers of the sovereign by individuals or groups of individuals, "privatization" of levers of public administration. The social project of "Leviathan" has repeatedly discredited itself in a similar way in various historical moments and in different cultural contexts, which prompted the concept of the right of rebellion to life.

In the famous "Treatise on Law," Thomas Aquinas explains in detail the right of peoples to political opposition. In our opinion, we must agree with the idea of the philosopher that "... the resistance of the tyrant's cruelty will be successful, as the action of any people not by their own initiative but by the decision of society. If the right of any large number of people reaches the point of imposing a king, then it is not unfair that the king put forward by them will be thrown down, or his power will be limited if he tyrannically abuses the royal power ..." (Aquinas). A similar ethical and theological system of coordinates, which defines the red line in the interaction of citizens and public administration as rational categories, has subsequently embodied in the constitutions and other legislative acts of some states. For example, Art. 7 of the Constitution of the Portuguese Republic dated from April 2, 1976, has consolidated that "Portugal recognizes peoples' right to self-determination and independence and to development, as well as the right of insurrection against all forms of oppression" (Constitution of the Portuguese Republic).

The concept of the right of rebellion (in some interpretations – to public disobedience, to the opposition) has also acquired some development at the doctrinal level. Scientific works focused on the development of this legal phenomenon belong to H. Arendt, V. V. Babin, E. Vitalie, V. B. Kovalchuk, S. P. Pohrebniak, O. O. Uvarova, D. Shtenberger and some others. Without making a detailed analysis of the existing points of view, we note only that their common feature is the recognition of the right of rebellion as a peculiar constitutional equivalent of the right to the necessary defence (Pohrebniak, Uvarova, 2013). In fact, it has a rational kernel of ethical justification for the possibility to realize the coup. However, following the indicated analogy, one should also admit that it can be applied only when the degree of oppression of the people has reached a critical point and is socially dangerous. In other words, the ethical basis of the coup is completely dependent on the criminological justification of the latter.

3. Popular uprising at the crossroads of law and morals

The realities of the present day prove that the most common scenario of the coup is the forced removal of heads of highest and central state authorities from performing official duties, which takes place without a pre-collected evidence base of their criminal activity, however, with subsequent objective investigation, proving the guilt and conviction In this case, there are two possible options: a) to use procedures stipulated by the law for dismissal from current positions, displacement, such as, for example, impeachment, no-confidence vote; b) without the usage of these procedures. The first of them – removes all questions about the legality of the dismissal of the relevant leaders and the coup in general, which is constitutional in the literal sense of the word. The second one leaves a lot of questions that quite often become the basis for political speculation and even military interventions by foreign countries under various motives: starting from restoration of the constitutional system to the protection of certain categories of people, who are really or mentally suffering from politically motivated harassment. In this case, some important evidence, considering a purely legal point of view, is obtained in a non-legal way, there are well-grounded remarks regarding non-compliance with the principle of presumption of innocence and the admissibility of evidence. This becomes possible in the context of the criminal proceedings on a general basis, without taking into account legal immunity, which the relevant head of state authority is deprived in an unforeseen by the law manner.

However, for the sake of justice, it should be noted that in the case, when the criminal activity of officials of highest and central state authorities has the massive nature and is extremely latent, then the possibilities of legalizing the process of preliminary collection of evidence base does not exist at all (at least within the limits of using national instruments of criminal justice). Then there is a logical question: how can one stop criminal activity in a situation, when law enforcement agencies at the highest political level are completely dysfunctional, and there is a lack of political will of the parliament, the president or other political actors to solve respectively the problem by using political means?

It seems that the answer to this question lies in the basics of the methodology of legal consciousness. From the point of view of legal positivism, this is absolutely a stalemate situation, which is characterized by a *permanent mass political victimization* in the scale of the overwhelming majority of the population of the entire state; the gap between the consistent patterns of sociodynamics and the functioning of state and imperious institutions becomes more and more relief contours, and public control over the public administration (including the use of mass media resources, the institution of public investigations, etc.) eliminated as it is, becomes ineffective. The conquest of the will of the ruling elite remains the only possible direction in the organization of social practices from the legal and positivist positions, and which is reduced to the widespread populism and abuse of law. However, trying to solve the problem of abusing the law by legal means (in the positivist sense) – it is nonsense. It is vitally necessary to get out of the dogmatic path of the ideological coordinate system. Without deepening, however, to the depths of the discussion about the most expedient and well-balanced types of legal consciousness, we note that in order to substantiate the strategy of eliminating a defined criminalized socio-political crisis situation, we consider it advisable to apply the integrative concept of the vision of the nature of law, the content of which can be expressed through the synthesis of positivism, natural and legal conception, communicative and a number of other theories of law. The proper legal substantiation of events that is launched in the context of social justice, but is not provided with an appropriate legislative assessment becomes possible, in our opinion, only with such an integrative legal paradigm of the perception of legally significant aspects of social interaction.

Without claiming to formulate heuristic provisions in this regard, we note only that when it comes to assessing the coup as a socially acceptable or socially dangerous one, one should take into account that this is the sphere of interaction between morality and law. However, one should immediately comment on the current danger of introducing moralizing innovations to legal reality. The fact is that the space of ethics, as reasonably noted by I. L. Zelenkova, is one of the few spheres of knowledge, where innovation often turns out to be threatening the very essence of this knowledge since moral laws must have inescapable value and significance. Nevertheless, a person is provided with the widest possibilities to choose (or to design) his own and, at the same time, universally valid samples and ideals, precisely in the field of morality. The most complicated task at the same time is to stay within the ethical framework; proceeding from traditional morals, not to push away morality in general (Zelenkova, 2001). Therefore, the moral justification of the coup involves a priori the significant risks of potential abuse presumably incorrect provisions in the future that can give a free hand in extremist, terrorist organizations. However, the source of law-formation, which should be maximally accompanied by the law-making process, should be in the depths of ethical comprehension of the state of things. Quite often, such an ideological and practical movement takes place in conditions of social conflict since any established system always strives for self-preservation. The same is applied to the political system and means of ensuring its stability, including legal ones.

There is a well-known ecclesiastical work of Sh.-L. Montesquieu "The Spirit of Laws" in science and journalism. Its key ideas about the relationship between the spirit and the letter of the law have become a trivial character at the present day, however, have not lost their relevance. The inconsistency of the legislative base (in particular, in the context of *effective and accessible* procedures of the influence of civil society institutions on state power in order to control its activities and, if necessary, the pre-term termination of the powers of individual officials), with the internal tendencies of social development – the essence of the law of dialectical contradiction, the visualization of the mechanism, the embodiment of which in the sociodynamics plane reveals internal sources of self-movement. The social system can only get rid of unacceptable for it elements of the system of law when effective channels of accumulation and articulation of its interests will be established by the institutions responsible for this process. Consequently, constructive legal changes are rarely possible only after reformatting the political system, in particular by radical means. This is a consistive pattern. At the same time, the key requirement is the reality and the need for restoration of social justice, the violation of which is directly related both to the characteristics of the positive and legal core of the legal system, and to the inappropriate allocation and implementation of political and state will, supported by legislative anachronism.

The attempt to specify the content of social injustice in the context of the grounds of the coup certainly leads to the necessity of its criminological substantiation.

4. Criminological goal for realizing the people's right of rebellion

It should be borne in mind that the definition of a crime or non-criminal nature of the coup as a political crime or an act of restoring justice and a radical manifestation of direct democracy is essentially a political assessment, which besides political factors, must be based on legal, ethical, and criminological principles. Therefore, the resolution of the possibility or impossibility of using the political and criminological technology of the coup, as an extreme measure for the cessation of the activities of organized criminal groups within highest and central government agencies should in any case be solved separately and should necessarily take into account its exceptional nature. This makes us talk about the possibility of operating it only in the case when the use of other measures for a long time did not contribute to the achievement of the criminal and preventive purpose.

In such a situation, the logic of reasoning can be built according to the scheme "by contradiction": the genesis of the criminalization of the highest and central agencies of state power and, finally, its apogee in the form of merging the apparatus of the state with organized criminal groups can be represented as a kind of coup. Capture of power occurs gradually and latently, using quasi-democratic procedures as means of covering and legalizing the criminalization of the state apparatus. The characteristic features of the latter's functioning are the ultra-high level of corruption, political and legal populism, the commercialization of public benefits (first of all – among natural resources), poverty of the population, economic recession, and the constant growth of external debt obligations.

O. M. Bandurka pondering on the problem of the formation of criminalization as a social system has expressed commendable in this aspect opinions. He has noted that political struggle is changing by the internecine struggle of criminal groups. It is impossible to break beyond this process. The whole legal system, the constitution and laws serve the interests of the criminal world. The law does not prevent crime and does not restrain it, but only regulates the rules between the clan rivalry. Social parasitism is growing, incentives for productive labour are eliminated ... Society involved into a crater of criminality is quickly plunged into the abyss and the opportunity to escape to the surface becomes all the more glamorous (Bandurka, 2013). It is obvious that such characteristics of the social system have nothing similar to the state's implementation of its tasks, which are enshrined, in particular, in the Constitution of Ukraine. There is a complete or significant dysfunction of the main state institutions, and the sphere of dominance becomes closed. Entrance to it (including through the elections) becomes possible only through the system of criminal (corruption) practices. Conquering the activities of public administration at all levels to narrow-minded interests made it possible for some theoretician in the law field to speak about the emergence of the form of state – corporate state, which was previously unknown to science.

The number of appeals of citizens of Ukraine to the European Court of Human Rights can be a casual confirmation of the severity of the stated problems. There are about 10,500 complaints from the citizens about their violated rights and freedoms by Ukraine. The vast majority of cases deal with such issues as: the right to liberty and personal integrity; the right to a fair trial; the right to peaceful possession of the property; the right to free elections; the right to a fair trial in relation to the right to execute a court decision, etc. (Rumiantseva).

And this is a reflection of only the part of the population that manifests the highest legal activity. The real scale of the systematic violation of human rights and freedoms in Ukraine – have gained impressive parameters in recent years. Whether the systematic enforcing of such a policy is a real coup when the very essence of the state is changed, and the direction of the activities of its organs acquires social parasitic features? Rhetorical question ... Whereas its subtext – is a real humanitarian tragedy, both in its manifestations, and the only possible way of solution within the life of one conditional generation of people. The latter is, somewhat, in the secondary coup (in fact – in the *restoration of the rule of law*), the purpose of which is to release the apparatus of the state, bringing it to a proper functional status, which would correspond to the social, legal, democratic vector of the country's development.

It is the stated criminal and preventive purpose, along with the requirements of legality, is one of the main criteria for distinguishing between a criminal coup (the forms of criminal tyranny) and the extraordinary manifestation of direct democracy. A criminal coup takes place in the presence of an exclusively political purpose or its significant predominance when the criminalization of state power is only used as an occasion for reformatting its personal composition.

Significant features of a criminal coup are the personalization of actions of the managerial, organizational character and their focus on the seizure of power in the literal sense of the term. This, first of all, means the desire to change the personnel of certain government agencies through the use of controlled influence, but not as a result of spontaneous acts of participants in mass protests. Secondly, the seizure of power itself should be a desirable outcome of the actions of political actors and to be in the structure of the intellectual moment of direct intent as a form of guilt within the structure of the subjective aspect of the legal composition of their criminal activity. These are not the actions that led to the forced temporal acceptance of the powers of a certain state authority to prevent the

occurrence of serious social and physical consequences.

However, if we want the criminal and preventive purpose to be a sufficient ground for legalizing the coup, it is necessary that the goal of restoration of social justice corresponds to it. In other words: it is the large-scale political criminal activity should be the main reason for the violation of social justice. Only under this condition, the criminological basis of the coup will be sufficient since it is considered in an inseparable tandem with an ethical basis. The latter will obviously be visualized in the presence of the critical mass of the population in the state (a conditionally qualified majority), which is the bearer of a kind of politically determined cognitive dissonance, a conflict of the real and desirable within the ideological aspect of state domination in the structure of mass political consciousness and collective and unconscious intersubjective emotionally resonance practices. Such a combination of rational and irrational in substantiation of ethical and criminological unity is due to differences in various types of societies, even those that are linked by a common historical past. Therefore, a significant criminalization of state power is not a sufficient reason for every society to legitimize the coup and bring it to the extent of permissible political and criminological technology. It should be mandatory noted on the intolerance of the vast majority of the population to the ruling political elite based on its adherence to organized crime and the absence of effective national mechanisms of decriminalization stipulated by the law (within the criminological sense) of highest and central state authorities.

5. Foreign policy influence as a factor of the delegitimization (criminalization) of mass resistance

In the context of the prevalence of the political goal of the coup, a separate scientific and purely practical interest raises the question about the significance of foreign policy influence on initiation and/or its occurrence, as well as legal, political, and criminological assessment in this regard. We believe that the presence of the indicated influence alone indicates either about exclusive nature, or at least about the predominance of the very political goal. Indeed, it is hard to imagine the mode of an exclusively altruistic subject of a geopolitical format, which does not have a remote strategic goal by making substantial capital infusion while supporting the counterpart political actors within a certain country. However, in this situation, it is also important to determine its role within the general course of protest events, the significance for achieving the final result, besides establishing the very factor of external influence and its political goal, which is no less important for its correct assessment and the coup in general. The latter, in order to legitimize the researched technology, should be no more than a condition that in a certain, not essential way contributes to the implementation of the technological program. In all other cases – it is about the criminal coup.

If there is a significant external influence (direct military, or veiled with the use of technologies of unstructured management), we believe that there is no realization of the people's right to resistance (rebellion). Consequently, there can be no discussion about legitimization, recognition of the coup as an acceptable political and criminological technology of combating crime that has occurred as a result of such influence. International regulatory acts are also based on the same positions. In particular, the Resolution of the UN General Assembly dated December 20, 2012, No. 67/170, effectively condemns "unilateral application and provision of execution of unilateral coercive measures by certain states" to the countries violating human rights. Thus, a foreign state itself, without UN sanctions, cannot apply unilateral coercive measures to a state, where people try to realize jus resistendi (Babin, 2013).

Such a placement of emphases in assessing the significance of the coup, depending on foreign policy influence, lies in the in-depth theoretical principles of national security, which is correspondently based on the concept of a national state. The stated concept, on the background of processes of globalization, holds strong positions in the structure of public administration strategies almost in all European countries and the world in general. According to W. Beck, the policy of "gold handcuffs", the creation of a dense network of transnational dependencies within the age of global crises and risks, leads again to the conquest of national independence – in contrast to the imperious achievements of a high-growth world economy (Beck, 2011). One cannot argue this.

Thus, summing up the above, we note that the coup is not always criminal and, while the compliance with the relevant conditions of legality and justice, the existence of criminological justification, can be studied as an accepted political and criminological mean of combating crime in the context of realizing the people's right to oppose. However, its acceptability should have temporary (ideally – single-action) character. The use of the technology of the coup for decriminalization (in the criminological sense) of the state apparatus, that is, the removal of persons among political criminals from its management should entail the further systematic reform of the basic principles of the activities of public administration, including the legal consolidation of the mechanism of termination of authorities of the heads of the state power in a non-radical way, for example, by expressing distrust, recalling elected positions, etc.

We are convinced that the people's right of rebellion in modern conditions should be transformed by appropriate legal means into the people's right to a broad and effective control over state authorities, which must be ensured by effective procedural instruments

for bringing the highest officials to responsibility. No wonder that the preamble to the Universal Declaration of Human Rights dated December 10, 1948, determined whereas "it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law" (General Declaration).

Therefore, one of the most urgent tasks of the latest strategy for the development of state-building in Ukraine, as well as in other European countries in the context of the latest challenges of the post-modern era, deprival of legitimacy, should be among other things: a) the integration of legal and criminological policy in the whole and in the defined aspect by the Universal Declaration of Human Rights, in particular; b) the development of political and anti-criminal activity of the population. According to A. Kaufmann, the right to resistance is, first of all, not great, heroic deeds. It is everyday life. Resistance is a small extent. This "small" resistance must be constant in order to make the "big" opposition obsolete (Kaufmann). Thus, the main instrument of political and criminological influence on crime, which should exclude the burdensome practice of state coups in all aspects, should be the developed political consciousness of all levels of the population and its constant participation in detection, recording, signalling and active counteraction to criminal practices of both general and political orientation.

6. Risks of realizing the right of rebellion in the conditions of globalized world

One cannot also ignore the essential condition for the implementation of the decision to apply political and criminological technology of mass resistance, namely, to its *compliance with the requirements of ensuring national security*. It should be noted that such a social problem in this aspect as the criminalization of power cannot be considered fragmentarily, exclusively at the national, regional level. It is comprehensive. Therefore, the prediction of the results of applying political and criminological technology of mass resistance should also be comprehensive rather than sectoral in nature and take into account possible effects in the sphere of internal and external politics, both within Ukraine and in relation to it.

It is well known that any action generates counteraction. A significant change in the configurations of the political system of one country within the globalized world cannot affect the interests of other countries. Hence there is a fundamental dependence of criminological policy on national security policy. We emphasize that the latter should be made on an integrated basis, take into account the geopolitical risks, as well as the composition, the character of the activity (in particular, criminal) of local political and economic elites. Consequently, the use of various complex radical means and measures to combat crime should always be analysed for possible intensification of threats to territorial integrity, constitutional system and other components of national security (economic, informational, etc.).

Therefore, while determining the possibility or impossibility of applying political and criminological technology of mass resistance, even if there are necessary ethical, socio-psychological, legal, and criminological grounds, we should mandatorily forecast the actualization of risks for the national security system and to form the necessary countermeasures in advance. If it is impossible to do this, the specified technology cannot be applied until the occurrence of corresponding changes in the structure of external threats in relation to the protective potential of the state.

7. Conclusions

1. The realization of the right of rebellion is a form of consolidation of civil society institutions in counteracting the deep, institutionalized criminalization of the political system and the dysfunction of law enforcement agencies when the form and content of the state enter into a complete (or substantial) dialectical contrary, that is, antagonistic relations.

2. The realization of the right of rebellion involves the radicalization of political and social confrontation, essentially aimed at the coup (in the social and criminological sense of the term), that is, to remove from administrative authority of the state by a group of persons for whom there is a reasonable suspicion (that is, who actually discredited themselves) in prolonged criminal activity, including political one.

3. The right of rebellion can only be realized on the grounds of the urgent need to restore law and order, that is, by having an exclusively criminal and preventive purpose.

4. It is also important to observe the combination of such conditions of realization of the right of rebellion: a) the long-term inefficiency of other means of influence on the criminalized apparatus of the state, which dysfunctions are evident in the sphere of protection of the rights and freedoms of the person, the fight against crime and justice, has been retrospectively proved; b) the lack of confidence of the personnel of the supreme agencies of state power in the overwhelming majority of the population; c) the actual impossibility to apply (implement) the democratic procedures stipulated by law for the influence on the personnel of the supreme agencies of state power, including the cases of massive actual blocking of instruments of non-state control over the course and result of their application; d) compliance with the requirements of ensuring national security on the basis of scientifically substantiated criminological forecast of the deployment of mass resistance, taking into account the probable reactions to it by the subjects of international law; e) the use of exclusively non-violent, legitimate methods of influence.

5. The procedure for establishing and substantiating these conditions depend on nature, the degree of criminalization of the state apparatus, the development of civil society institutions, the specific socio-political and criminal situation.

6. Lack of necessary and sufficient grounds and conditions does not allow identifying a complex of appropriate measures with a democratic procedure for the realization of the right of rebellion. Depending on the nature and meaning of the acts that constitute the content of such measures, they may be qualified as offenses, in particular, crimes.

7. Essential features of a criminal coup are the personification of actions of the managerial, organizational character and their orientation to the seizure of power.

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FOREIGN EXPERIENCE IN ELECTRONIC TAX ADMINISTRATION AND THE POSSIBILITIES OF ITS USE IN UKRAINE

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Abstract. *The aim* of the article is to study the foreign experience of electronic tax administration on the basis of the analysis of scientific literature, and as well as to determine the possibilities for its use with further improvements of domestic legislation in this field in Ukraine. *The subject* of the study is the foreign experience of electronic tax administration and the possibility of its use in Ukraine. *Methodology.* The research is based on the dialectical method of scientific knowledge and on general scientific methods, which are based on it, such as: analysis, comparison, analogy, induction, and others. *Results* of the conducted study have shown that today there is a large number of countries where the digital tax format functions effectively and constantly develop. It is substantiated that the use of the experience provided in the article will give an opportunity to build a simple and effective system of electronic tax administration in Ukraine. And this fact, of course, will influence positively on the financial sphere in Ukraine. *Practical impact.* The positive experience of establishing a legal framework for the provision of electronic tax administration in foreign countries proves that the digital tax format functions effectively and is constantly developing. Besides, some practices of these countries in the field of electronic tax administration can be rather positive for implementation in the territory of Ukraine. *Correlation/originality.* Conducting a comparative analysis of the legislation and legal doctrine of Ukraine, and the countries of the European Union and the USA regarding the legal provision of electronic tax administration is the basis for developing the most promising directions of development of domestic legislation in the financial sector of the entire Ukrainian state.

Key words: international experience, e-administration, taxes, software, international law.

JEL Classification: H87, K34, K33

1. Introduction

An analysis of any innovation legal phenomenon, mechanism, institute, industry, etc., provides for the definition of all its features: specificity, subject structure, subject matter, as well as comparison with a similar category in another legal system. In other words, to form approximately the final result of the implementation and its future prospect, at first you need to see what development it has acquired in another foreign country. In other words, you need to consider international experience. Electronic tax administration is a rather new category in the tax and legal system of Ukraine in general. At the same time, a large number of processes that are just starting in our country, in most developed countries of the West and East have already been existing for a long time. Taking into account all these; we see the need to study the international experience of electronic tax administration and the possibilities of its use in the territory of Ukraine. An analysis of international experience is a necessary condition for any scientific study. The introduction and development of e-administration in this aspect is not an exception.

2. The state of the research

Such famous scholars have studied some specific issues concerning the improvement of electronic tax administration in their scientific works as: V. M. Harashchuk, V. M. Shovkovyi, O. M. Lefterova, O.Iu.Dubovyk,Yu.B.Ivanov,A.I.Krysovatyi,A.Ia.Kyzyma, V. V. Karpova, S. V. Klymenko, A. L. Chycherin, Yu. O. Kostenko, A. A. Maievska, T. V. Medynska, R. Iu. Paslavska, A. M. Novytskyi and many others. However, despite a large number of scientific developments, there is no one comprehensive study devoted to the foreign experience of electronic tax administration in the legal literature. That is why the article aims to study the international experience of electronic tax administration and determine the possibilities for its use in Ukraine.

3. Presentation of the main material

During analysing the foreign experience of e-administration and its possible use in national practice, the peculiarities of the use of information technology in the taxation process in the United States of America are

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of considerable interest. It should be noted that the tax system in the USA can be characterized either by national or European wide peculiarities, taking into account the long-term political and territorial dependence of this state on the United Kingdom. As Tkachenko N. M. states, the tax system of the United States consists of three levels corresponding to levels of government, such as: higher (federal level) – the establishment and collection of federal taxes, the administration of which is governed by federal laws, receipts from these taxes are counted to the federal budget; middle level (state level) – the establishment and collection of local taxes, administration of which is regulated by state laws, receipts are counted to state budgets; lower level (lower level of territorial administration – municipalities, districts, etc.) – collection of taxes introduced by local governments, receipts are counted to local budgets (Tkachenko, 2004; Andriushchenko, Hryn, 2015).

The US tax authority is the Internal Revenue Service, which is an organizational member of the Ministry of Finance. The peculiarity of this fiscal service is its dual nature, which results from the implementation of different functions, such as public finance and law enforcement functions (Shalnov, 1993). It should be noted that in accordance with the provisions of the normative legal acts, which are the basis of the activities of this department, the main purpose of the service is to provide US taxpayers with higher quality services. This can be implemented through the assistance in clarifying and enforcing tax liabilities, as well as through applying tax laws in an appropriate and fair manner to all. Thus, the activities of the Internal Revenue Service, first of all, are aimed at the interaction with taxpayers, on partnerships with them (Savchuk, 2013).

The US e-tax administration experience can be called one of the oldest in the world. The introduction of information technology in the tax process was connected with the development of e-government in the United States. Among the many e-government programs in the 1980s, an attempt was made to automate the process of providing tax reporting and also some other tax services. The introduction of e-reporting has become a real breakthrough in this field, which can be proved by the increase in the level of efficiency and volume of taxpayer accounts. It should be noted that software development was made by public entities along with private ones (Sonja E. Pippin, Mehent S. Tosun, 2014).

At the same time, a significant number of troubleshooting moments in electronic reporting were defined. First, e-tax administration has not achieved the same level of development throughout the country, which was due to the lack of opportunities for individuals in some regions to use online tax services. Secondly, the system of electronic tax administration was rather complex compared to other e-government programs, such as online banking. And all these, in fact, had led to situations where payers did not understand how to use it (Sonja E. Pippin, Mehent S. Tosun, 2014). For today, tax reporting can be provided by communication channels in several ways: 1) you can prepare and send tax reporting through an intermediary audit firm; 2) you can fill in the reports by yourself with the help of the purchased software and then send the report through the operator; 3) you can fill out the report online on the sites of special operators, a list of which can be found on the portal of the National Revenue Service (Demenko, 2013). The introduction of an electronic tax administration format helped to avoid queues, and also helped to save a large amount of time and money, which people usually spend on reporting to the tax authorities. Besides, the reporting software automatically performs a lot of special calculations and it can find errors, and the electronic key system makes electronic reporting protected from third-party intervention (Demenko, 2013).

The next country to study is the UK. We think that its experience can be useful for us. I. O. Tsymbalyuk, O. V. Tsuz and O. V. Kuznetsov state in their studies that Britain is home to the science of taxation. The Scottish economist Adam Smith is the founder of the tax theory, on which the modern British tax system is based. As we all know, he developed the concept of "free trade" and consistently advocated the idea that state intervention in economic processes should be minimal. Smith also criticized indirect taxes, because they lead to wage growth, and consequently, there can be an increase in production costs and a decrease in profits. Instead, he considered rent as the most unproductive expense, which does not turn into self-increasing cost (Kuznetsov, 2010). The Royal Tax and Customs Service of Great Britain is the main body in the administration of taxes on income, profits, capital, the collection and systematization of accounting for customs duties, taxes related to the import of goods, as well as control of import and export flows of goods, etc. The structure of this body consists of four structural divisions, namely: a unit of taxation of individuals, a division of tax accounting, a corporate tax unit, and a unit of tax payment (Shulatova, 2014).

Great Britain also has great experience in electronic tax administration. Particularly, each taxpayer has its own personal electronic tax registration page ("tax account"). All information about a particular taxpayer consolidates. Besides, with the help of an electronic account you can: check and change your address in the taxpayer accounting system; see which tax code is used to calculate the tax; check the state of the pension calculation; manage tax credits, child benefits, etc.; receive emails from tax authorities (Your personal tax account: promotional material, 2017). The approach of organizing information security within the framework of e-tax administration is sufficiently substantiated. For example, information security during working with a personal electronic account of a payer is provided by several factors at once: all online services can be used exclusively by those payers who have registered in the system and have passed the authorization, by entering a personal password and ID;

a high-quality software is used to protect information; when working with an electronic account, the security of payees information is provided by a special encryption technology called "Secure Sockets Layer" (The free HMRC app: promotional material, 2017). Special mobile applications have been developed and implemented for ease of use of electronic tax administration services in the UK. Using these applications, taxpayer has the opportunity: to review his electronic tax account and determine which taxes are required to be paid; he can review his earnings; check the personal insurance number; review schedule of tax benefits; he can use a special tax calculator; participate in the process of correspondence with the tax authorities, etc. (The free HMRC app: promotional material, 2017).

It should be mentioned that in the United Kingdom, electronic tax administration is developing very quickly since information technology is being introduced in almost all areas of the tax system. First of all, this is due to the convenience of transferring a part of the taxation process to the online format, because its efficiency and effectiveness are significantly increasing under such circumstances. In addition, a significant factor in the rapid development of e-administration is the gaining relevance of e-commerce within the country's financial system. The latter is a wide range of interactive methods for conducting activities on providing consumers with goods and services. Also under the electronic commerce, we can understand any forms of business operations, where the parties interact through electronic technologies, but not in the process of physical exchange or contact (Maievska, 2010). Thus, the transfer of a significant part of the business on the Internet causes the necessity of the formation of a corresponding model of the activities of state bodies. That is why the relevance of electronic tax administration is increasing.

It should be mentioned that e-administration exists and is actively developing not only in the UK and the United States but also in many other foreign countries. For example, in Australia, the general "digitization" of the government's activities became the impetus for the creation of the electronic tax administration system. Special electronic accounts for taxpayers were introduced, as well as convenient conditions for filing tax reporting through the Internet. Besides, in Australia, they pay a lot of attention to the issue of security in the use by taxpayers of special electronic services. Today a special two-tier structure of verification of the identity of the subject of taxation has been introduced, in the process of entering into his own account in the system of electronic administration. In the future, it is planned to introduce another level, which will include confirmation of the taxpayer's voice (Digitalisation of tax: international perspectives).

Brazil has also rather large experience in the field of building electronic tax administration. This state is building a tax system on the principle of complete automation of all processes inside this tax system. Particularly, the key objects of the introduction of innovative technologies were: tax control, taxpayer accounting and tax reporting. At the same time, the introduction of electronic tax administration positively influenced the tax system. Thus, according to 2015, 97% of tax audits were carried out electronically. And in most cases, certain violations of tax laws have been identified (Koval, 2015).

Taking into account all of the above, today it is necessary to analyse in detail the already existing legal framework in Ukraine, which regulates the administration of taxes. Also, nowadays it is important to introduce effective proposals for changing this base, taking into account the tasks of modernizing the economy on an innovative basis (Yunin, Sevruk, Pavlenko, 2018).

4. Conclusions

So, the analysis of international experience in the field of electronic tax administration has shown that today there is a large number of countries where the digital tax format functions effectively and is constantly evolving. Besides, the individual developments of these countries in the field of electronic tax administration are positive and necessary for the implementation in the territory of Ukraine. Particularly, in order to improve the e-administration of taxes in our state, it is necessary:

- first, we need to involve private organizations in the process of manufacturing software for the system of electronic tax administration. For Ukraine, this experience is extremely useful, because this model of work allows attracting more experienced specialists who can create high-quality and, most importantly, functional software. This, in turn, will significantly improve the efficiency of electronic tax administration in general;
- secondly, in the process of direct introduction and construction of the system of electronic tax administration, it is expedient to use an approach, according to which the key emphasis is not carried out separately on the issue of introduction of technologies in the activities of the authorities. But the main attention is paid to the state support of information infrastructure in general. Mainly, such an approach manifests itself in stimulating the private sector in the implementation of activities related to the creation of new technologies and their implementation in the life of society;
- thirdly, the system of electronic tax administration should be effective, but at the same time, it should be as simple as possible for taxpayers. In this aspect, it is advisable to use a UK experience. In this country, a subject of taxation has access to its electronic account in the system of electronic tax administration from a mobile phone through special software. And the functional and spectrum of electronic services for such an account are quite wide. The use of the mentioned above international experience will make it possible to build a simple and effective system of electronic tax administration in Ukraine, which will surely have a positive impact on the financial industry of the entire state.

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WORLD SHIPBUILDING: DRIVING FORCES AND RELEVANT DEVELOPMENT VECTORS

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Abstract. The *purpose* of the paper is to find out under the influence of which external impulses and according to which vectors events in the field of shipbuilding are taking place in our time. Concentrating attention on them, the authors sought to provide shipbuilders-practitioners with guidelines useful for making weighted and sometimes fateful business decisions. The conducted research seems timely from the viewpoint of the formation by the owners and management of the development strategy of domestic shipyards. Especially those related to the "new wave." In the overwhelming majority, it is represented, paradoxically, by small and medium-sized enterprises. In recent years, they have been striving to find their own place in the international market for engineering, construction, repair, conversion, operation, and recycling of products whose line makes the structure of the chosen industrial specialization. The fact that the prospects for this business, despite the known difficulties, are optimistic is evidenced by the dynamics of the absolute volume of cargo transportation by sea and the construction of new vessels it has caused. *Methodology*. The performed generalizations are based on the analytical processing and systematization of data obtained by the authors from available information sources. *As a result*, substantiation of the arguments confirming the formulated working hypothesis regarding fundamental changes in the global shipbuilding – a key type of marine economic activity – has been obtained. Among its many features – a high level of competition, in which more and more new rivals are drawn. The study outlines the factors, under the influence of which the identified metamorphoses occur. This creates the prerequisites for identifying causal relationships between the first and second ones. In particular: humanity's facing with the realities of the Fourth Industrial Revolution, signs of which are easily detected in shipbuilding; awareness by governments, socially responsible business, the public of the fatal consequences of neglecting environmental safety, affecting the natural environment and people employed in the maritime industry or residing in its area; advances in the sectoral international division of labour, accompanied by the emergence of new shipbuilding centres; the rising cost of marketing and building ships and the desire of shipowners to get an effect on the scale of the facilities used. At the same time, obstacles that occur along the way are identified. *Practical implications.* In support of the conclusions, we analyse the experience of leading enterprises, which serve as an example for imitation and deserve further development. They are not limited solely to technical and technological innovations but find the use of new organizational forms of mobilization of accumulated potentials. Among them are shipbuilding clusters. Turning to their creation, the initiators seek to strengthen the competitive positions of participants in developed segments and actively form new promising markets. *Value/originality.* As a result of systematization of the key areas of the drift of world shipbuilding, an information platform has been created, based on which shipyard management is able to foresee the future of the business under its care.

Key words: economy, shipbuilding, maritime economy, Industry 4.0, ecological safety, scale effect, international specialization.

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1. Introduction

Shipbuilding – one of the oldest and extremely competitive types of maritime business, the relation of which in Ukraine is not indifferent. But if the authorities, individual officials, and party leaders only mention it in the context of the implementation of certain election measures (this is especially noticeable on the eve of 2019), then the business (mostly small and medium) proves the desire to preserve the maritime status of the state. It's not easy to do. Therefore, due to everyday troubles, owners and management do not always have time to verify corporate growth and development strategies with planetary vectors for advancing the initiated business.

Without their awareness, in the globalized world, as well as in the markets for complex engineering structures (vessels, ships, offshore mining platforms, wind power devices), any mistake leads to loss of market advantages, depletion of the portfolio of contracts with corresponding financial implications. There are many examples. It is the short-sightedness of the former leaders of the Black Sea Shipbuilding Plant, VAT "Shipbuilding Plant "Okean" (put up in August 2018 for sale after the announcement of its bankruptcy), the Plant named after 61 Communards along with unpretentious thinking of the leaders of the profile ministries led to the decline of the once-flowering industry. Only the aircraft carriers of the naval forces of China remind of its upsets. All of them (buildings or complete complexes) were built in the past at Ukrainian shipyards.

The following disgraces get a particularly bitter taste as well because they happen at a time when:

on average, during the launching ceremonies taking place on the staples, in slips and dry docks of enterprises scattered by the territories of all (except Antarctica) continents, a traditional bottle of champagne is annually smashed on boards of more than 1350 newly built vessels;

ninety percent of the world's commercial traffic is transported by sea. But the advantage of the vessels is not limited to this. Specially trained specialists also conduct industrial fishing and fish processing, provide artificial growth of live edible and decorative organisms, entertain travellers during cruises, run the underwater utility lines, conduct searches and evacuation of those who have suffered an accident, counteract attacks of pirates, explore and extract minerals, mobilize renewable energy sources, deprive the environment of pollution, are concerned with the arrangement of the coastal zone of the seas and inland reservoirs, etc.;

large and small shipowners are not tired of replenishing briefcases of ship order with new contracts so shipyards enthusiastically get down to work. So we must stop lag behind!

2. Brief literature review

It would not be fair to abstract from the workings of our predecessors. Some have devoted their publications to the clarification of the nature of economic cycles in world shipbuilding (Hossain, 2017; Nikiforov, 2011). Others highlight regional aspects of the issue (The statistics Portal, 2018; Grey, 2015). The annual reports of international organizations and specialized statistical databases have proved to be extremely useful (Shipbuilding Industry, 2017; Review of maritime transport, 2017). These and other publications are investigated by the authors with interest and attention. As a consequence, the results obtained are represented in Figure 1. Consider each component of the scheme in more detail.

3. Integration of shipbuilding in the contexts of Industry 4.0

A feature of the XXI century has become a series of transformations in the world economy, which under the German initiative have been called the Fourth Industrial Revolution (Industry 4.0). It is expected that it will obtain absolute domination in the industry of intellectual production based on digital systems, which through the Internet collect information and keep control of the supply chain throughout all stages of the product's lifecycle. The launched processes have not sidestepped such a high-tech activity as shipbuilding. In support of this hypothesis, we give a few arguments.

1. Distribution of systems of automatic control of

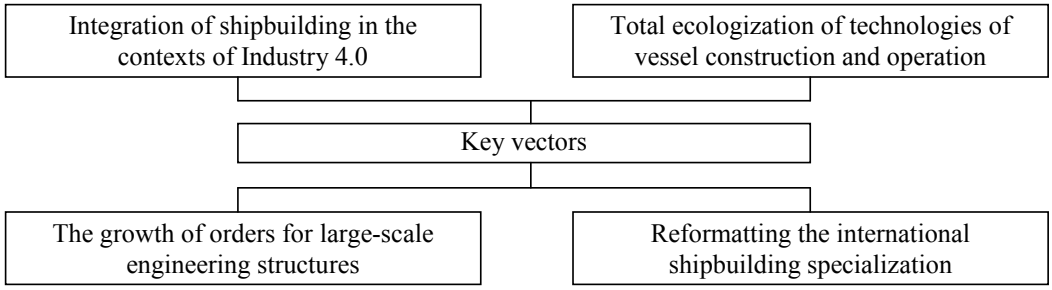

Figure 1. Development of world shipbuilding

Source: the author's generalization

vessels and operations of cargo handling in ports. For example: computer navigation, global positioning of ships, automation of loading and unloading works. They allow, firstly, reducing the number of crews, dockers' crews and, secondly, increasing shipping safety and productivity of cargo terminals. The growth of the popularity of complex operating systems is due, among other things, to the explosive rise of container traffic. The software developed controls the flows of goods, port equipment in real time, plans to distribute containers to the warehouse area, control the work of trucks, trains arriving for or with cargo.

2. Development of new technologies for the design, construction, and operation of ships. In particular:
a) offering shipping companies a diverse range of products of various sizes thanks to the combination of standard hull fragments. This reduces the production cycle, simplifies the conversion of one or another part of the object during scheduled or unpredictable repairs;
b) robotizing of production processes as a means of increasing their economic efficiency by reducing the cost of work and the limited involvement of staff to perform hazardous technological operations. An example is the South Korean Shipyard "Geoje" of Samsung Corporation, which uses robots in 68% of welding processes (Hodson, 2014). And where the presence of a worker is mandatory (during the construction of vessels, some operations cannot be automated in principle), they offer exoskeletons. These devices allow manipulating parts and knots weighing 100 kg;
c) the coordination of many functions in order to accelerate the development and implementation of new products in the market that would satisfy the customer's idea of an acceptable price-quality ratio. Among them, as appropriate, – marketing (monitoring market needs, PR events, sales organization, including e-commerce), the timely order of an extremely wide range of component parts, metal, manufacture of ship structures from it and, of course, the search for sources of coverage of huge current costs.

For the industry concerned, given the competitive environment in which its enterprises operate, the duration of the construction of vessels, ships, drilling platforms (from a few months to several years), this is especially important. The response to the corrective request was the transfer to shipbuilders from the engineering bureaux of 3D models of the hull, its systems, and individual building sections arranged according to international standards.

Here, as never before, the technology of electronic information exchange becomes useful. Here are some of the many examples: CALS-technology – Continuous Acquisition and Lifecycle Support, Design for Manufacture and Assembly, Design for Production, Kronodoc Solutions. They provide opportunities, firstly, for the processing of superfluous information flows, which tend to increase and improve the intensity; and secondly, to create, share, and distribute knowledge from available sources; thirdly, for rational distribution of employees' efforts and saving of funds due to the complete exclusion of paper from circulation (Parsyak, 2015).

4. Total ecologization of technologies of vessel construction and operation

It follows from the growing awareness of the need to prevent harmful emissions to the environment. This is not a trivial moralisation. According to scientists (CEEH, 2011), over the past few years, air pollution from international shipping has caused 50,000 premature deaths only in Europe. The fact is that because of the chemical reactions in the air, the exhaust gases from marine engines are converted into small particles and harmful aerosols. Together with black carbon, they fall into the lungs of people, from there – into the bloodstream, and then – into the internal organs, causing their disorder. This is a terrible price paid by mankind for the growth in shipping.

According to the concept of "environmental (blue) logistics" (Seroka-Stolka O., 2014), everyone concerned should take care of minimizing waste and contaminations in the supply chain that is under control. From this, shipyards should build energy-efficient vehicles. In particular, due to:
a) the transfer of main and auxiliary engines to alternative fuels. For example, liquefied gas. This will reduce the carbon dioxide emissions into the atmosphere tens of times (compared to diesel fuel) and will reduce the cost of shipping by taking into account the difference in the prices of the first and second energy carriers. Moreover, due to this innovation, the strict environmental safety standards introduced by the International Maritime Organization (IMO) and the responsible governments of the countries will be respected. For example, European ports allow vessels using fuel containing 0.1% sulphur (Review of Maritime Transport, 2016).
An acceptable alternative is exhaust gases "washing" with an aqueous alkaline solution. We will consider that in scrubbers developed for this operation both sea and fresh water are applied with the same success. The effect is striking: the device holds 99% of CO2 and 98% of solid particles. After final testing of the emission reduction technology, experts expect to achieve one hundred percent compliance with the IMO criteria for the discharge of water used for the intended purpose, while maintaining the work of the main machinery at the same time (Zundkvist, 2011);
b) application of renewable energy sources. So, for example, solar marine systems developed by Eco Marine Power Co. Ltd (Japan) are installed on such large vessels as car transporters, cargo and passenger ferries, oil tankers, not to mention suburban river and pleasure boats (Quick, 2012). The computers, with which they are equipped, follow the best use of the current weather conditions, take care of "folding of sails" and their

security during a storm;
c) the use of light composites in the vessel construction. They have an impressive weight and strength ratio. Among the most promising is Buckypaper. This is a sheet made of carbon nanotubes. If to make a composite of the corresponding number of these sheets, we get a material 10 times lighter but 500 times stronger than steel (Kaczor, 2008);
d) fastening "air kites"-towers to the stems. They accelerate the movement and, as a result, save fuel. This exotic technique is evidence that specialists continuously think over ways and means of depriving mankind of dependence on energy sources, which, on the one hand, are being exhausted and, on the other, the use of which spoils the environment. Testing of such an auxiliary power (manufacturer – SkySails company) of 600 m^2 on Beluga vessel with a deadweight of 20 thousand tons, which carried out a transatlantic sail between Hamburg (Germany) and Guanta (Venezuela), and from there to Mo i Rana (Norway), has shown that the innovation saves fuel on average two thousand dollars a day (Richard, 2008).

5. The growth of orders for large-scale engineering structures

Tankers hold the leading positions. The largest of the giants built – Seawise Giant (renamed as Happy Giant, Knock Nevis, and Mont) – had a deadweight of 565 thousand tons. In the container transport sector, MOL Triumph reached a record 20170 TEU. The passenger ship "Harmony of the Seas" invites about seven thousand passengers on board each voyage. And in addition – 2100 crew members and service staff.

The main reason for the "gigantomania" is the desire to save on a scale, as with the increase in size, the transportation capacity of vessels grows faster than the construction cost and operating costs together. For example, in order to build a tanker with a deadweight of 550 thousand tons, at least 1.7 times less metal is needed than for 22 vessels of similar designation with a deadweight of 25 thousand tons. The number of its crew will be 20 times smaller, and fuel cost will be lower four times (Narusbayev, 1988). The size of vessels, in turn, determines the tonnage of a certain shipping sector and freight rates. They are an integral part of the price of cargo, and in the future – of goods, whose production depends on the supply of materials, component parts, and semi-finished products.

At the same time, there are also counterarguments for increasing the size of ships. How do such "goliaths" manage to cross not only man-made channels but even natural channels with their limited depths? Where to find investments for the establishment of appropriate infrastructure in the ports that will service them? How do the corresponding costs affect the expected scale effect? Are insurance companies (especially after the 2008 global financial crisis) powerful enough to compensate owners for loss of their vessels or their damage due to a collision, overturn, fire, terrorist act? What are the consequences for the environment in this case[1]? The following and many other questions are waiting for the answer.

6. Reformatting the international shipbuilding specialization

In the middle of the last century, shipyards of the Old and New Worlds were unconditionally shipbuilding great. But soon they encountered problems, which resulted in the fact that almost two-thirds of the shipyards ceased in Europe, which led to the job loss of hundreds of thousands of people. The response to the latest challenges and threats by competitors has been large-scale innovation diversification measures that have made it possible to open or strengthen positions in the following market segments:
innovative and premium ships. In particular, ocean yachts, ferries, cruise liners, research vessels, roll-on/roll-off ships, chemical carriers, offshore and "blue" ships. At the last, harmful emissions to the atmosphere and into seawater have been eliminated, fuel-saving technologies have been introduced. This is motivated by special programs of a holistic approach to engineering and building of environmentally friendly objects, started in particular in the European Union. Among their participants – ship, classification societies, research institutions, and institutions of higher education;
wind parks They are created with such intensity that some ships have completely reoriented themselves on the installation of offshore wind generators and their maintenance.

From a number of organizational innovations, we draw attention to the spread in the countries of our continent as an effective tool as it turned out as clusters. Since the creation of the European Network of Maritime Clusters, it has been 13 years since. Today it covers more than ten national marine clusters: Sea Vision UK (Great Britain), Bundesministerium für Wirtschaft und Technologie (Germany), Cluster Maritime Français (France), Federazione del Mare (Italy), Clúster Marítimo Español (Spain), and others. By their structure, almost all of them integrate the following activities:
design, construction, maintenance, repair, and modernization of vessels and other floating marine structures;
manufacture and sale of all kinds of equipment for ships and other marine floating facilities and structures;
financial, legal, technological, port, and logistics activities, ship's agency service;
exploitation of vessels, floating marine structures,

[1] The cost of cleaning only the water area and the coast after the explosion on the Prestige tanker was 12 billion USD (Prestige Oil Spill, 2008)

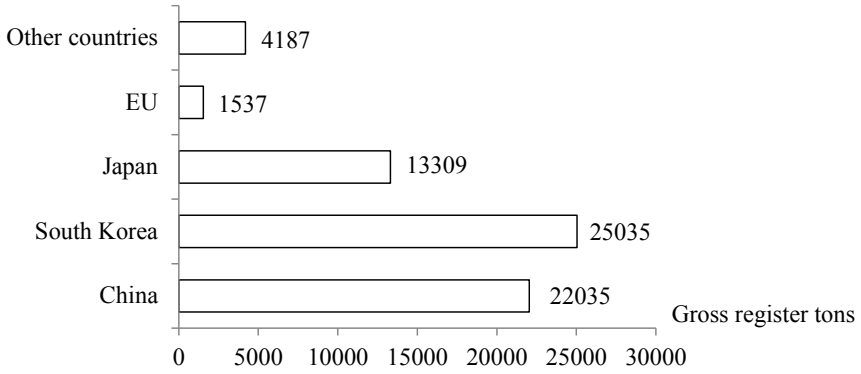

Figure 2. Leading shipbuilding countries

Source: the statistics Portal, 2018

drilling platforms.

Unlike the industry form of business organization known from the past, modern industrial clusters are characterized by high innovation that feeds the roots in the informal integration of large companies with a great number of small and medium enterprises, technology centres, engineering firms, which cooperate within the framework of a joint value chain.

As a result of considerable efforts, now 300 shipyards have enough orders, which provide work more than 500 thousand workers. Their efforts generate income that amounts to about 30-40 billion euros per year (Lo C., 2013). As for tankers, ships for general cargoes, container carriers, their construction is mainly concerned with China, South Korea, Japan. Together, though not negotiating this, they turned the Asia-Pacific region into a new centre of world shipbuilding (Figure 2).

A characteristic feature of the last decade was the emergence of shipbuilding business in developing countries: Algeria, Bangladesh, Vietnam, India, Indonesia, Malaysia, the Philippines. Most concentrated their efforts on small and medium-sized facilities and has already managed to serve export markets. For example, Singapore specializes in support and supply vessels, dredgers, yachts, research vessels. Their main competitive advantages are:

cheap labour. Even cheaper (who could have thought!) than in China;

government support. In Malaysia, ships are exempt from taxes on the import of components and on sale. In 2015, the Shipbuilding/Ship Repair Industry Strategic Plan was approved here, which aims to ensure control of two percent of the world's shipbuilding by 2020 (Fardaus, 2014).

Some shipyards seek economic unions with more experienced international partners. In this context, attention is drawn to the beginning of the release of Vietnamese German and Japanese licensed ship facilities: Wärtsilä, MAN Diesel, and Mitsubishi.

The list of states that are rapidly increasing the volume of trade by newly built ships has increased due to Brazil, Mexico, and Venezuela, which gives grounds for attributing Latin America to applicants for the participation in competitions for the commitment of shipowners in the most attractive market segments. Brazil, for example, sees prospects in the construction of oil platforms and vessels of the offshore sector.

The real shipbuilding boom that swept the world's "newcomers" did not leave indifferent foreign investors. Among the most active are:

shipbuilding firms. They are attracted, firstly, by a low cost of production; and secondly, an increase in demand for shipping services, which increases the portfolio of contracts. In 2015, China has directed 10.9 billion USD in Indonesian shipbuilding. This is only a share of 63 billion USD planned to be spent on infrastructure development in the archipelago country (Grey, 2015);

shipping companies. Their motivation is more branched out. On the one hand, the desire to increase control over the suppliers of their fixed capital. On the other hand, the desire to take advantage of the vertical integration of own business with the potential of the shipyard[2]. And, finally, savings on a scale. It is noteworthy that shipyards-newcomers have the ability to learn and increasingly apply for orders for high-tech facilities, which may mean the loss of Europeans' best card in a competitive struggle.

4. Conclusions

1. The world economy does not have any chance to exist and develop without shipbuilding, the enterprises of which produce a number of complex engineering structures. Each of them serves as a specific kind of economic activity. At the same time, the shipyards' load depends on the business activity. Its increase causes extraordinary demand, requires the

[2] Under the agreement between the South Korean Hanjin Heavy Industries, a part of the holding company Hanjin Group, and the largest shipping company of France CMA CGM Group, not in Japan and not in China, but in the Philippines, three of the world's largest container carriers with a capacity of 20 thousand TEU will be built (Grey, 2015)

intensification of their movement from the warehouses of finished goods to the places of consumption. Simultaneously, deceleration of the business activity entails postponement of purchases, inhibition of sales, negatively affects the work of shipyards. This pattern should be predictable both by rulers and corporate management.

2. The relentless pursuit of capital for expanded reproduction was the result of shifting the centre of gravity of world shipbuilding from Europe and the USA to the Far East, to South-East Asia, and Latin America. Those who were contemptuously considered as "emerging" quickly turned from outsourcers into independent players in the shipbuilding markets, creating a fair competition for investor countries. It was not just an unexpected surprise, but immediately affected the mood of shipowners, who were attracted by relatively cheap means of sea transport. Especially – superfluous. The benefit turned out to be double since the scale effect also showed itself. In turn, Europe and the USA were faced with the closure of shipbuilding enterprises, the disappearance of jobs, and the bursts of social discontent among coastal residents.

3. If this had happened in the IX or even the early XX century, an economic confrontation would likely lead to the resumption of the status quo by military means. Meanwhile, the world has changed significantly and civilized methods of confrontation were invented to counter self-created rivals. The first of these was the proclamation of the relevance of the serious attitude towards environmental protection. Especially since it actually fell under the threat of irreversible negative consequences for human life. This has created an industry that has not been seen before – the offshore industry, in that part that is related to alternative energy.

The second counterpoint was the emphasis made on the use of innovative technologies at all stages of the lifecycle of shipbuilding products. By their help: a) the time and cost of construction of vessels aligned, in comparison with the "oriental tigers"; b) the market received an unprecedented offer, which constitutes the unique competitive advantage of the EU and the United States. How long – time will show.

4. World experience – not fun to take pleasure or to fear. World experience is, above all, a great opportunity to make sound conclusions, gain wisdom, learn from others' mistakes or positive achievements. It is obvious that power and business during the time of Ukraine's existence as an independent state failed even to preserve, much less improve shipbuilding. This does not mean, by the way, that everything is lost. Appropriate beliefs feed the activities of the new generation of shipyards. We are confident that the future belongs to them!

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LEGAL DESCRIPTION OF THE FACTORING CONTRACT IN ROMANIA

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Abstract. In light of the fact that capital is a major factor in production, the development of entrepreneurial activity becomes impossible without considering the financial market and the resources provided to its subjects. Regardless of the degree of development, any entrepreneurial activity is engaged in direct contact with financial markets, in particular through institutions that act as intermediaries in raising money and services. The development of a solid basis for doing business requires understanding the rules of functioning of the financial system and its mechanisms. Considering the current economic situation, as well as the procedure for granting loans by banks, which is gradually becoming more complicated, while the national and international markets require capital movement, factoring becomes the most accessible instrument and only source of financing, with which the latter increases concurrently with sales. Therefore, *the aim of this article* is to study the legal nature of the factoring contract in Romania: to identify its regulation object, functions, types, legal features, and other specificities to introduce the positive experience of foreign colleagues to the legislation of Ukraine. *Methodology.* It is proved that the current legislation concerning the issue of factoring in Ukraine should be improved because in our country the factoring market is still not very common in spite of its rapid development in the world. Moreover, there are no thorough studies on factoring in general and a factoring agreement in particular; some issues on this topic have been considered only in scientific articles. Therefore, the authors refer to the legislation of Romania to determine those features of legal regulation, which have contributed to the rapid and effective development of this institution in this country, and to make appropriate proposals for improving domestic legislation with the use of positive foreign experience. *Results.* The article suggests a general description of the factoring contract in Romania: the concept of this agreement is revealed; the object of its regulation, as well as implementation of the factoring contract, is determined; its functions and features are described; the parties to the agreement and their legal status are determined. The specificities that have contributed to the rapid enlargement of factoring in Romania are given particular consideration. *Practical implication.* The factoring agreement as an operating instrument for credit institutions is especially important due to its constant practical applicability that enables to choose the optimal commercial activity both at the national and international levels. *Relevance/originality.* In Ukraine, given the need for further development of entrepreneurial activity, the issue of increasing total factoring operations is important. The implementation of positive international experience on this issue in domestic legislation is essential for this stage.

Key words: factoring, factoring contract, receivables, client, factor, debtor, subrogation, liquidity.

JEL Classification: G17, H68

1. Introduction

In light of the fact that capital is a major factor in production, the development of entrepreneurial activity becomes impossible without considering the financial market and the resources provided to its subjects. Regardless of the degree of development, any entrepreneurial activity is engaged in direct contact with financial markets, in particular through institutions that act as intermediaries in raising money and services. The development of a solid basis for doing business requires understanding the rules of functioning of the financial system and its mechanisms. Considering the current economic situation, as well as the fact that the procedure for granting loans by banks is gradually becoming more complicated, while the national and international markets require capital movement, factoring becomes the most accessible instrument and only source of financing, with which the latter increases concurrently with sales. In addition, factoring is the cheapest form of short-term financing. Providing financing without

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guarantees and being a complex product of commercial management, the factoring agreement is considered the most optimal economical solution for companies that do not have sufficient financial support, but have a well-designed business plan (Paraschiv, 2013). Despite the rapid development of this market segment of financial services over the last years in the world, factoring in Ukraine has not yet become sufficiently widespread due to economic instability and rising inflation. Instead, in the neighbouring country of Romania, the factoring market is developing at the fastest pace in Europe.

Therefore, the aim of this article is to study the legal nature of the factoring contract in Romania: to identify its regulation object, functions, types, legal features and other specificities to introduce the positive experience of foreign colleagues to the legislation of Ukraine.

The results of the study are a general description of the factoring contract in Romania, exposed in the article, such as: the concept of this contract is revealed, the object of its regulation, as well as implementation of the factoring contract, are determined, its functions and features are described, the parties to the agreement and their legal status are determined. The specificities that have contributed to the rapid enlargement of factoring in Romania are given particular consideration.

2. Main material

In world practice, factoring operations have become widely used for product sales since the 60s of the last century. The dynamics of the market for factoring services in the leading countries of the world during the last 7 years is positive, the annual total growth is about 18%.

In Ukraine, for the first time, the possibility of factoring operations was provided for in the Law of Ukraine "On Banks and Banking" as of March 20, 1991 (Pro banky i bankivsku diialnist, 2001); for example, Art. 3 provides for that banks can perform banking transactions to acquire the right to receivables of goods and services, taking credit risk of such receivables and collection of these receivables (factoring). Despite the fact that factoring as an operating instrument for credit institutions is especially important because of possibility to choose the optimal commercial activity both at the national and international levels, in Ukraine it has not yet become sufficiently widespread due to economic instability and inflation.

At the same time, over the past five years, the Romanian factoring market has grown by more than 100%, and in 2015, it was the largest growth in Europe (35%), up to 3.65 billion euros. The factoring market in Romania began to develop in 1993 through specialized departments of banks, and in 2006, specialized non-bank financial institutions were created. Currently, 15 participants operate in the Romanian factoring market.

In order to protect and represent the interests of the factoring sector and those involved in this activity, in 2011, the Romanian Factoring Association (RFA) was created, which currently has nine members. In April 2012, the RFA signed an agreement on cooperation with the International Factors Association (IFA). It is known that the IFA is the largest association of financial companies in the world, and its members are factoring companies, lenders that provide asset financing, and other institutions that perform financing receivables. At present, the association has more than 375 corporate members.

The cooperation agreement is extremely important as it is aimed at assisting the members of this association by providing information, organizing scientific events to discuss factoring issues, facilitating other activities agreed by the signatories. In addition, the agreement supports the participants in the Romanian market by providing them with the necessary data, access to professional training, and guaranteeing their creditworthiness. Since 2013, annually the RFA has been studying changes in the key factors of the factoring market. This analysis is based on information provided by members of the association and other non-bank financial institutions.

Moreover, the RFA managed receivables from companies by 14.5 billion EUR, providing the country's economy with significant support.

In the development of the Romanian factoring market, the main role is assigned to banks through their specialized divisions. Meanwhile, non-bank financial institutions also contribute greatly, in particular by ensuring a diversified market for companies of any profile. Now, the Romanian market has high interest from foreign capital to finance the factoring sector, in particular, non-bank financial institutions.

The concept of factoring traces its origin to Anglo-Saxon law of the XVII century when it played a significant role in the development of international trade, because of contribution to the supply of textiles to the United States of America by England. The specialized literature states, "British industrialists who supplied textiles to British emigrants, penetrating even deeper westward, appreciated the need to find guarantors to provide their exports. Undoubtedly, these were the first factors" (Gavalda, 1978).

Internationally, the factoring contract is regulated by the UNIDROIT International Factoring Convention, adopted on May 28, 1988 (Konventsiia UNIDRUA pro mizhnarodnyi faktorynh), and the United Nations Convention on the Assignment of Receivables in International Trade, adopted on December 12, 2001, in New York (Konventsiia Orhanizatsii Obiednanykh Natsii pro postupku debitorskoi zaborhovanosti v mizhnarodnii torhivli).

Given the significant role played by factoring in the development of international trade, the importance of establishing uniform rules for a legal framework facilitating international factoring was recognized. Therefore, the UNIDROIT Convention on International Factoring was signed in Ottawa.

According to article 2 of this Convention, "factoring contract" means a contract concluded between one party (the supplier) and another party (the factor) pursuant to which: a) the supplier may or will assign to the factor receivables arising from contracts of sale of goods (services) made between the supplier and its customers (debtors) other than those for the sale of goods (services) bought primarily for their personal, family or household use; b) the factor is to perform at least two of the following functions: finance for the supplier, including loans and advance payments; maintenance of accounts (ledgering) relating to the receivables; collection of receivables; protection against default in payment by debtors; c) notice of the assignment of the receivables is to be given to debtors.

In Romanian legislation, the definition of a factoring agreement was first provided in Article 2 letter b) of the Emergency Ordinance no. 10/1997 on easing the financial deadlock and economic losses (Emergency Ordinance no. 10/1997 of 1997 on easing the financial deadlock and economic losses) as a contract between a party called the adherent, supplying goods or providing services, and a bank or a financial institution, called the factor, under which the latter shall finance tracking receivables and safeguard the credit risk, and the adherent assigns to the factor claims arising from the sale of goods or the provision of services to third parties.

This definition was somewhat adjusted according to Article 146 of the Annex to Order no. 1418/1997 of the Secretary of State, Minister of Finance and Governor of the National Bank of Romania (The Secretary of State, Minister of Finance and Governor of National Bank of Romania), adopted on the chart of accounts for banks and the methodological standards for its use. According to the Annex, the factoring is the operation whereby the client called 'the adherent' assigns ownership of receivables (bills) to its commercial bank, called 'the factor', which has an obligation, under contract, to ensure recovery of receivables of the adherent, assuming their risk of default.

Finally, Article 6 of the Law no. 469/2002 on certain measures for strengthening the contractual discipline (Law no. 469/2002 of 2002 on certain measures for strengthening the contractual discipline) defines the factoring contract as a contract between the Party, providing goods or services, called the adherent, and a bank or a financial specialized institution, called the factor, under which the latter shall finance tracking receivables and preserves against credit risks and the adherent assigns to the factor receivables arising from the sale of goods or services to third parties. It should be noted that according to this legal regulation, the factor had to assume three obligations in its relationships with the adherent, without the possibility to choose one of them: financing, monitoring receivables, and safeguarding credit risks.

The mechanism for the implementation of factoring operations can be described as it follows: under the factoring contract, the adherent sends original invoices or certified copies to the factor thereof with the mention that they were sold and that the payment is to be made to the factor; subrogation must be reported to the debtor to pay it by the factor; the factor pays indebtedness to the adherent at face value, less commission either immediately, therefore, before their maturity (old line factoring) or at maturity if the contract was concluded in that form (maturity factoring). In practice, such a system is used for only immediate payment of a percentage of the invoices by the factor, while the remaining should be repaid after the receivable.

In most cases, a framework factoring contract is used that comprises the obligation of the factor to buy and the client to sell all claims or those that meet certain criteria, which the Parts determine, while each claim assignment is entered into a factoring contract separately. It should be noted that the adherent may send a receivable to the factor only partially and repay the rest by himself.

Factoring operations are classified by the following criteria:

1) according to the time of payment of receivables from the adherent by the factor:

a) an 'old line' factoring contract, that is, payment of receivables is made by the factor when receiving bills, so before they reach maturity;

b) a maturity factoring contract, that is, the factor pays claims when it is payable;

c) an agent factoring contract, that is, the factor buys the receivables of the adherent and upon assignment, pays the bills in advance, assuming the risk of default by debtors. The difference is that the adherent undertakes the management of receivables, when receives them in own name and transfers them to the factor;

2) according to the right of recourse that the bank can exert over the adherent:

a) a factoring contract with recourse, that is, the adherent takes the debtor's credit risk or refusal to pay the debt;

b) a non-recourse factoring contract, that is, the factor pays receivables when receiving the invoices from the adherent;

3) according to participants in the factoring operation:

a) an internal factoring contract, that is, the factoring operation takes place on the territory of a single country, intervening only one factor;

b) an external factoring contract, that is, an international commercial contract takes place, intervening two factors: the import factor and the export factor (Nemeş, 2013).

The object of the factoring agreement is the receivables, which the factor monitors, finances, and preserves against credit risks, in exchange for which the adherent assigns all its claims on debtors to the factor. In order to become an object of a factoring agreement, the receivable shall be clear and liquid, and it should distinctly specify its maturity or, at least, an opportunity to specify it. Future receivables may also be the object of a factoring agreement.

In view of the risk the factor undertakes, the factoring contract includes a special provision that the adherent is obliged to transfer all invoices, including accounts receivable, to the factor, and the factor can accept only those

that show a high degree of certainty about their repayment at maturity by the debtors ("exclusivity"). In addition, the factoring agreement includes a requirement of globality, through which the adherent shall transfer all its claims on debtors to the factor. This prevents assigning by adherent to the factor only bad debts, which are difficult to recover and retain only certain receivables. The two requirements are interdependent (Stănciulescu, Nemeş, 2013).

Factoring is a bilateral agreement involving the adherent and the factor. The debtor is a participant of a factoring operation, but is not a Party, although he/she has some concerns in it, what will be discussed later on.

The adherent is a conscientious supplier of goods or provider of services or a contractor, that is, a natural or legal person engaged in a particular type of commercial activity. According to specialized literature, the adherent can be a non-commercial legal entity, recognized by law as having the ability to conduct business (for example, an associations, funds or unions) (Vartolomei, 2006).

While the adherent can be both a natural or legal person engaged in a particular type of commercial activity, and according to some scientists, a non-commercial legal entity, can only be a specialized financial institution or banking company which is a legal entity.

The debtor is a buyer of goods or recipient of services to which he is to pay the equivalent of money, products or services provided.

In terms of the factoring agreement, after the adherent transfers the payment obligation to the factor, the debtor is obliged to pay all the amounts recorded in the invoices only to the factoring company. Payment is made at maturity. In case the debtor refuses to pay, the factor is entitled to submit a claim to the court, and the debtor, in turn, may defend himself by using all the remedies, which he would have applied if the applicant were the client himself. For example, the debtor may object to a prohibition on certain actions, a debt repayment before receiving an appropriate notification or a repayment before the distribution of receivables.

Legal features of the factoring contract are:

1) the contract is mutually binding, as its conclusion entails interdependent obligations borne by both parties. The factor undertakes to provide financing, management of receivables and their preservation against credit risks and the client undertakes to submit ownership on receivables arising from the sale of goods or providing services;

2) the factoring contract is consensual because it is concluded through the mere agreement of the parties. The written form is a condition required for the transaction. In practice, no bank will conclude a factoring contract other than in writing;

3) the factoring contract is onerous as each Part aims to achieve a material benefit. Factoring is essentially onerous; without the price that the factor pays for receivables assigned by the adherent a factoring contract does not exist;

4) the factoring contract is continuing because it runs over time;

5) the factoring contract has personal character, according to the doctrine recognized by the scientific majority, because in order to conclude it, the adherent should possess characteristics, such as professional competence, customer stability, respectability, credibility. Some authors doubt this feature because the decision of the factor to refund is influenced by monetary issues and less by the personal characteristics of Parties involved in the factoring mechanism (Stănciulescu, Nemeş, 2013);

6) the agreement is a contract of adhesion because the factor imposes contractual terms. In practice, he can select debtors by himself and deny the assumption of doubtful debts of the adherent;

7) the agreement is an ancillary contract because it determines the relationship between the adherent and the debtor, arising from receivables assigned to the factor;

8) this is a commutative contract because the Parties know their obligations under this agreement from the moment of conclusion. According to Romanian legislation, the factoring contract can be random in case of the factoring contract without recourse, that is, the factor bears the risk of insolvency of the debtor;

9) the contract is complex because it includes an assignment of debt, a subrogation, additional obligations for the factor, such as monitoring of accounts, their keeping, taking credit risk and financing the adherent.

A special condition of validity of the factoring contract consists of the material delivery of invoices by the adherent to the factor.

The essential functions of the factoring contract are:

1) a function of financing, also called a liquidity function.

Under the factoring contract, the factor provides the client with financing services without any additional guarantees; the guarantee is the assignment of all accounts. So the factor, subject to acceptance receivable from the adherent, is obliged to provide the latter with the necessary liquidity, profits from which he gets even before maturity. It should be emphasized that this type of financing is only for a period of 90 to 120 days, and in exceptional cases for 180 days;

2) a service function or management function. When executing a factoring contract, depending on the type of factoring, the factor can provide the adherent with an integrated package of services, which includes: assessing the creditworthiness of the debtors; accounting of debtors with all necessary data on receivables; monitoring of debtor creditworthiness; responsibility for the invoices presented; responsibility for collecting receivables; providing explanations on debt liquidation; providing explanations on accounting and financial debt management; conducting consultations on taxation issues during the implementation of factoring operations, etc.

This function is of particular importance in factoring since it enables the client to avoid spending additional

costs and time and focus exclusively on his work on the manufacture (supply) of goods or services.

3) a function of credit risk taking. In accordance with this function, the factor takes credit risk after a preliminary examination of the debtor's creditworthiness, that is, his ability to pay off in full and in a timely manner. This means that after the concluding the factoring contract, the factor shall not make a recourse claim to the adherent in case of debtor bankruptcy or delayed payment (Petre, 2007).

Therefore, a comprehensive description of the factoring agreement in Romania enables to single out the features that contributed to the rapid development of factoring in this country. Under challenging economic conditions, the factoring contract is a solution for companies to focus on their commercial activities of manufacturing and purchasing goods or supply of services while maintaining liquidity without having to give guarantees. Another advantage of the factoring contract is protection against the risk of indebtedness of borrowers, buyers of goods or recipients of services provided. Finally, the growing interest of companies for the factoring contract is caused by the possibility to use the experience of banks in assessing the creditworthiness of adherents, in the management and administration of receivables.

On the other hand, factoring is interesting also for the members of the Romanian Factoring Association because it enables them to manage liquidity for a fee, which is higher than the interest rate applied to the loan in the credit market. Banks and specialized non-bank financial institutions concluding factoring contracts, in turn, use all guarantees and privileges of companies manufacturing (supplying) goods or providing services.

3. Conclusions

To sum up, the factoring contract is interesting due to the specific provisions: the requirement of exclusivity clause and the requirement of globality. The adherent is obliged to assign all his receivables to the factor, while the latter may accept only that he considers safe in terms of their payment at maturity.

For the development of the factoring market in our country, in the factoring contracts, the list of services provided by banks and other financial institutions should be extended to include such services as:

- accounting of sales, inventory, management of monetary assets;
- providing the adherent with information about the financial and economic status of customers;
- providing the adherent with statistical data concerning the main consumers of the product that he produces (supplies) and its total sale on the market, etc.

Thereby, the factoring company will become not only as a credit institution for the adherent but also the one to provide with banking, insurance, accounting services as well as important commercial information. This will greatly save time and money of the manufacturer (supplier) of the goods and will help him focus solely on his core business.

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RETROSPECTIVE AND MODERN ASPECTS OF THE DEVELOPMENT OF CHARITY

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Abstract. The article considers the retrospective and modern aspects of the development of charitable activity in the socio-economic sense, which is the assistance to other persons at the expense of own welfare or free time, and provided that this assistance does not harm other persons and is carried out within the law. Charity should benefit not only the immediate recipient of benefit but also society as a whole. The authors emphasize that the conducted study supports their hypothesis that under the conditions of globalization, society increasingly focuses on social issues that arise as a result of insufficient state resources and so charity becomes a factor in their successful resolution. The development of charity is a system of social, economic, and cultural factors. One of the stages of the development of charity was the creation of charitable foundations specializing in various fields: scientific, cultural, sporting, educational projects, assistance to needy families, help for orphanages, hospitals, fundraising for expensive treatment and other projects. In today's world, the attitude towards charity as a professional occupation has become widespread, becoming a "social norm." Charitable funds are a separate and important component of the charitable institution. The concept of "charity" came into the public consciousness as a humanistic call of a person to go to the needy, regardless of religious, national, racial, social affiliation or political or ideological beliefs. Retrospective analysis showed that forms of philanthropy in the advanced form existed already in ancient Rome and ancient Greece; in medieval Europe, they already acquired the status of state and social policy at the legislative level. In the Christian aspect of ancient Rus of the adoption of the Orthodox faith in 988, the foundations of charity are laid as socio-ethical norms of society. In the second half of the XVIII century, as a result of secularization, charitable societies, hospitals, almshouses, open by public organizations and private individuals arise, that is, there are social and state institutions of charity. And charitable funds, which are socio-economic professional activities, are beginning to develop. From ancient to modern times, charitable activity is carried out in the forms of patronage, sponsorship, volunteering, fundraising. Modern trends of charity include: increase of the non-profit sector and its internationalization; cooperation of charitable foundations, development of a social partnership with business, state bodies, and foreign funds; professionalization through the creation of network charity. In turn, charity abroad is characterized by growing professionalism, a variety of forms and programs of cooperation, the growth and expansion of the sphere itself and its importance for non-profit, in particular, socio-cultural activities. The undisputed leader in this area is the USA – the birthplace of modern sponsorship and fundraising. The authors conditionally distinguish three levels of charity. The typology and general characteristics of foreign charitable foundations, typical for the USA, European countries, and Ukraine, are presented. Features of creation and functioning of quasi-public funds are considered. On a global scale, the foreign activity of the US foundations is significant, and the expenditures exceed the official foreign aid budgets of many countries. However, their presence in Ukraine is relatively low. The volume of support is negligible compared to official support amounts: according to the OECD, the amount of grants actually received by Ukraine from other states and multilateral donors in 2011–2017 amounted to more than 5 billion USD while less than 0.1 billion USD came to Ukraine from US foundations. But this does not exclude the role of private donors in solving certain problems, in particular, in terms of supporting civil society, protecting the rights of vulnerable groups of the population, etc.

Key words: charity, evolution of charity, society, social policy, US charity, funds in Ukraine.

JEL Classification: G23, N31, N23, H49, H89, I38, I39

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1. Introduction

Economic, social, political, and cultural transformations of the last decades have created the prerequisites for the emergence in our country of the charity institutes characteristic of societies that have gone through the path of modernization. A large number of facts indicate the deployment of processes of their formation, despite the fact that they occur not very smoothly, not harmoniously, and as a rule contradictory. In such circumstances, it would be natural to conduct a wide range of studies of this process, both from the specific positions of various social sciences and in the context of interdisciplinary synthesis.

Let us consider retrospective and modern aspects of the development of charitable activity in the socio-economic sense, which is the assistance to other persons at the expense of own welfare or free time, and provided that this assistance does not harm other persons and is carried out within the law. Charity should benefit not only the immediate recipient of benefit but also society as a whole.

Charity cannot be accompanied by a violation of human rights, on the contrary, it, first of all, is aimed at protecting the socio-economic rights of the individual and cannot be carried out in violation of the law (Benevolensky, Mersiyanova, 2010; Opilat, 2015).

In the context of globalization, we are increasingly focusing on social issues that arise because of the lack of state resources, and as a result, charity becomes a factor in their successful solution. The development of charity is a system of social, economic, and cultural factors. Education of the population should form the people's desire for environmental improvement. In these circumstances, when the effects of financial and economic reforms are felt, first of all, on socially vulnerable groups, charitable activity becomes of special significance in providing assistance to the poor.

One of the stages of development of charity was the creation of charitable foundations specializing in various spheres: support of scientific, cultural, sports, educational projects, assistance to the families of dead and wounded servicemen, assistance to orphanages, hospitals, provision of funds for treatment, etc. (Opilat, 2015).

Cardinal economic and social transformations have led to radical changes in public life, in particular, in charity. Charitable activity and its role in society are influenced by numerous interacting tendencies of the modern world, such as the evolution of power; modernization and globalization of the economy; technological progress, which leads to the emergence of new ways of communication; the accumulation of experience in the implementation of charitable activities, which increases the ability to make reasoned decisions. In today's world, the attitude towards charity as a professional occupation has become widespread, become a "social norm." There are exchange and development of various ideas and technologies between organizations and countries. Charitable funds are a separate and important component of the charitable institution. Insufficient funding encourages the search for innovative models of additional funding for socio-cultural development. Multi-channel financing of culture, education, and science, which is based on a combination of budget and extrabudgetary sources, becomes a dominant position.

The purpose of the study is to determine the retrospective and contemporary aspects of socio-economic development of the evolution of charity as a socially useful activity. Additional studies are also required for the formation of promising directions for expanding charity in countries with urgent needs through an extrapolation review of the development of charity in the world, an extended review of the current state of charity, the formation of charitable foundations, and an analytical review of US charitable activities in the world and Ukraine.

2. The methodology of research

The concept of "charity" came into the public consciousness as a humanistic call of a person to go to the needy, regardless of religious, national, racial, social affiliation or political or ideological beliefs. Recent studies in social sciences have shown that the moral principles of charity do not contradict the religious canons of any of the three world religions.

The charity was perceived by ancient societies in Egypt, China, and India as one of the human virtuous qualities. It was seen as disinterestedness and social payment to the needy. The charity was known to the ancient Jews. In the Talmud, charity is denoted by the word "tzedakah" (righteousness or justice). The followers of Judaism had various forms of manifestation of charity: the practice of debt relief, debt cancellation, charitable treasuries serving the redemption of captives, and providing a dowry to the poor newlyweds (Levandovsky, 1995). However, as an independent sphere of human being, charity appears in Ancient Greece. This was related to the fact that the Greek society, having accumulated a certain spiritual experience, among other areas of its existence begins to allocate a special sphere, where there are friendly feelings, moral relations and relationships. Thus, the concept of "charity" (philanthropy) is formed, which means love for people, a friendly attitude of one individual to another, and friendship. In the Roman church, the emphasis was placed on helping the sufferer on the very act of almsgiving. The purpose of charity was not to help the neighbour but the gifts in the name of God, who buys eternal bliss (Shtal, 1978).

In the historical context of social charitable events of the period of antiquity, in particular in the Odyssey of the ancient Greek poet Homer, the original form of charity – alms (Shtal, 1978). Charity in that period was

based on polis ideology, a kind of socially useful activity: alms were made mainly for the sake of social and cultural goals (Govorenkova, 2004). As Shtal I. V. (1978) noted, the absorption of the individual by the state in ancient Greece was, as is known, even in the social nature of consumption, so, of course, the issue of care for the poor was surely a state issue. On the other hand, the poorest part of the population was slaves, whose provision was the sole responsibility of their owners.

In Europe, the French king Charles the Great began the guardianship over the poor in 779, and he imposed a tax in favour of the poor on all vassals, bishops and abbots, obliging them to maintain a certain number of the poor. At the same time, it was forbidden to ask alms and give it. The indicated policy did not reduce the needy, on the contrary, their number increased (Levandovsky, 1995). There was a need for more active state intervention in the process of combating poverty. At this stage, there were legislative approaches to the regulation of poverty and begging in European countries. During the XVI century, "Poor Relief Acts" were adopted in England, France, and Germany. The famous law of Queen Elizabeth (1601) even empowered local parishes to collect a special tax for the poor (poor rate). Legislative acts of European monarchies, adopted during the Middle Ages, became, in fact, the first laws on public welfare. Civil society assumes the responsibilities of rendering assistance to all needy; the ideology of Christian mercy is replaced by the ideas of social engineering. State forms of relief are emerging, as well as attempts to create specialized social institutions (almshouses, shelters). The most widespread philanthropic activity takes place in the second half of the XIX century, especially in England, France, and Germany, where it relied on significant support of state power (Kotilko, 2011).

Historians also found the need to provide assistance to "poor and deserted" in the Treaty of Prince Oleg with the Greeks in 911 (Govorenkova, 2004). Since the adoption of the Orthodox faith in Russia in 988, the foundations of charity – the moral duty of the rich to help the poor are laid (Kotilko, 2011). Helping the needy becomes the foundation of the ideology of the Christian religion. This is also stated in the Statute of Volodymyr the Great of 996, where a special part of society, which was separated from the Christian flock and was named as church or almshouse people, was handed over to the church. This part of society in all their church and non-church affairs was in charge of ecclesiastical authority. It consisted of the following: secular and regular clergy with their families; laity who served the church, or those who solved various worldly needs of people; homeless and poor people (Stupak, 2009).

In a further development, as emphasized by historians D. I. Bahalii and L. I. Lanchukovska, brotherhoods that created and held schools and hospitals occupied a significant place in the charitable church activity in Ukraine. In Sloboda Ukraine, the first charitable affairs of the brotherhoods date back to 1678 (Lanchukovska, 1997).

D.I. Popov notes that in the second half of the XVIII century, as a result of secularization (the removal of church lands from the monasteries), the closure of monasteries, there was a sharp decline of church charity. At the same time, charitable societies, hospitals, almshouses opened by public organizations (zemstvos, cities) and private individuals, arise massively. Eparchial guardianships were created for poor representatives of spiritual ranks who had the right to raise funds in their parishes (Popov, 1907).

At the end of the XVIII century, charitable establishments for numerous soldiers' children are started to be formed; the Technicum for the Deaf is established in Pavlovsk; in 1811, Obstetric Institute with maternity hospital for poor women, and also houses for soldiers' widows are established. In 1802, the first almshouse was opened as a house for the poor in Gatchina, the custody house for the blind (Charitable Russia, 1901). Studying the formation of charitable orphanages, P. Ye. Horbunov stated that this idea has emerged in society in the second half of the XIX century, the purpose of these establishments is as follows: come to the aid of families suffering from poverty, give a moral orientation to children who live in poverty from the cradle, to deprive cities of child beggars. For this purpose, the Orphanages Committee was established, which activity was aimed at social security of orphans (Charitable Russia, 1901).

Studying charity as an attribute of civil society, scholars M. F. Dmytriienko and O. V. Yas draw attention to the Ukrainian traditions of charity. The Kyivan princes, the Cossack hetmans and the colonels carried out charitable acts and showed mercy, built churches at their own expense, and contribute huge funds to monasteries. D. I. Yavornytskyi wrote that hetman Petro Konashevych-Sahaidachny was famous for his charity, he was worried about people's education, the placement of public schools, and he left for the poor hospitals and cash payments for their living until the end of their days (Yavornytskyi, 1991).

Investigating the historical traditions of the world about guardianship of the poor, P. I. Heorhiievskyi noted that gradually the matter of assistance to the neighbour is formalized, degenerated, it is no longer a help considered to be a charitable deed, but a sacrifice, a donation of the rich to the poor as depriving himself of some share of material wealth. Such an approach permeates charity in Europe in the Middle Ages. So, since 1547 in France, the focus is again on the need to care for the poor, it becomes a state matter, and taxes in favour of the poor appear (Vaillant, 1906). In 1597, the Charitable Uses Act was presented in England, which stated that charity funds could be used to help elderly, helpless, and poor people, to support sick and crippled soldiers and seamen, etc. (Vaillant, 1906).

In other countries of the world, the beginning of the XX century was marked by the emergence of private

charitable foundations. The first private charities were established in the USA. Thus, the Carnegie Corporation of New York was founded in 1911, the Rockefeller Foundation in 1913, and others. Thus, charity becomes a part of entrepreneurship, the owners of large companies have sought to avoid excessive taxes and hide their property from income tax. As we see, a charity in the world is gradually becoming the prerogative of large companies, which are ready to give up a small part of the funds in order to protect their property. At the heart of such charity are the purely economic interests of individuals and legal entities. The French researcher É. Vaillant, analysing the peculiarities of charity at the beginning of the XX century, wrote that public trusteeship is becoming a new form of charity. The state of the ruling bourgeoisie, taxing the people, helped the poor not so much in order to reduce their poverty, so much so to soothe their anger against oppressors (Vaillant, 1906).

Since 1917, social policy in the field of charity in the territory of the Russian Empire is fundamentally changing. With the formation of the Soviet Union, the existing in the Russian Empire charitable organizations are started to be liquidated. Guardianship of those who suffer becomes solely a function of the state (Private foundations, 2010-2017). The phenomenon of public-private philanthropy in the Soviet Union loses its significance.

The emergence of an independent state of Ukraine once again set the need for society to return to the best Christian traditions, including the need for the revival of charity. Analysing the phenomenon of charity and its manifestation in the life of society, Ye. A. Shelekhov emphasizes that charity is an important auxiliary mechanism that partly eliminates the shortcomings of the social policy of the state (Kotilko, 2011). In today's conditions, the question arises about the social responsibility of business representatives for their activities and their awareness of the need for charitable activities for the benefit of society.

Unfavourable tendencies in the Ukrainian economy cause the actualization of the self-organization of society and its moral aspect. The role of the latter was emphasized by Scottish economist A. Smith, who argued that the basis of obtaining wealth is selfish interest – the "invisible hand of the market", forcing a person to interact with other people, studying own interests while also contributing to the general benefit: "Give me what I need and you will get what you need…" (Menger, 1870) The issue of self-organization of society through the achievement of personal goals was studied by many representatives of the Austrian School of Economics. Representatives of the Austrian school were convinced that complex social phenomena can be explained as a consequence of the actions of specific individuals who in their economic activities follow certain economic laws.

One of the founders of the Austrian School, Ludwig von Mises, acknowledged that often institutes arise as an unintended result of actions aimed at achieving other goals, but for the study of institutions and the evaluation of their effectiveness, it is necessary to use the mind in social analysis (Mises, Ludwig von, 1949). Emphasizing that human activity always involves the use of means to achieve a specific goal, Mises wondered whether the planned state intervention was the appropriate means to achieve the desired goal.

Menger (Menger, 1870), Mises (Mises, Ludwig von, 1949), and Rothbard (Rothbard, Murray N., 1998) – all of them were united in the fact that the main problem of economic science is not the description of the market, which it would be in a situation of equilibrium – this is impossible – but the study of the interaction of forces that make up the market process. An idea that unites all areas of the social economy is to analyse human activity, which allows formulating the basic economic principles of charity: charity is the deprivation of a human from the need for charity. In other words, sponsorship, donations, and assistance should be aimed at ensuring that the person who receives it no longer needs it. However, in the works of many economists, issues of charity as a specific kind of redistribution of economic benefits, principles of charitable organizations, prospects for the development of economic foundations of charitable activities in Ukraine are not sufficiently explored.

3. Results and discussion

The social policy of the state, ideally, is the derivative of institutionalizing the cooperation of citizens in the realization of their personal social and charitable aspirations and social state and non-state institutions. The wider the field of consensus, the less tangible the confrontational component of social policy, the more so on other equal terms, this policy is stable, strong, and predictable. But the consensus in this case is the coincidence of personal philanthropic aspirations of citizens. Why do the actions of the state are needed for their implementation? The answer is given by economic theory, and in a simplified presentation, it is as follows. If a citizen is not sure that the goal for which he is ready to spend his energies and money will be supported by the forces and means of many fellow citizens, for him it is often irrational to do individual actions. For example, a small donation will not change anything in the state of health. However, a citizen may willingly vote to withdraw this amount from him in the form of a tax if he is sure that, firstly, he the actions approved by him will be financed, and secondly, due to taxation, funds of other persons will be attracted too (Opilat, 2015).

There are several conditional levels of charitable activity. The first one is that in which charity is carried out on a purely individual basis without the need for any developed institutional form. At the second level,

charity is represented by the activities of formal and informal structures of civil society, such as charitable foundations. Institutionalization within such structures allows, on the one hand, uniting efforts and, on the other hand, efficiently and in a controlled manner spending the donations of great benefactors (Paweł Dziekański, 2017). This, of course, helps to achieve more complex and meaningful goals than at the first level. But for the second level, there are boundaries, and where philanthropic goals go beyond them, a further complication of charitable institutions is required, based on their integration into the institutional framework of the state. Opportunities to achieve social goals are sharply increasing. For this reason, the number of resources involved and used at the third level is much higher than in the second, not to mention the first one.

However, the transition from level to level is, in essence, an increase in the institutional capacity of actions, but not a change in their nature. Nature, however, is most directly manifested where charity cannot be concealed with the envelope of state policy (the picture is obscured if the state is accustomed to perceive as something separate from citizens). Analysis and forecast of mature social policy are impossible beyond the context of charitable activities.

The task of developing self-regulation in the field of charity and volunteering in Ukraine is also very important. The transition from the existing system of monitoring charitable organizations is necessary, which is carried out almost exclusively by state authorities, to the system of state and public control, in which, along with state bodies, associations and unions of charitable organizations take part (Martynyuk, 2015). Formation and development of the system of self-regulation, mixed public-public control allows providing a reliable multi-faceted information system aimed at disclosing the activities of charitable organizations, needed both for donors and potential beneficiaries, and for the state, willing to verify the justification for granting possible benefits for charitable activities (Benevolensky, Mersiyanova, 2010).

Typology and general characteristics of foreign charitable foundations.

Foreign private funds can be categorized with a certain share of conventionality according to the sources of financing and activities.

So, American funds for analysis purposes are divided into five main groups, namely (Raik, Kristi, 2006):
– independent funds – charitable organizations, based on a financial endowment, the founders of which are private individuals (such as the Charles Stewart Mott Foundation) or families (e.g. Bill & Melinda Gates Foundation);
– funds funded by companies. By their "nature" they are practically similar to independent charity organizations; however, unlike them, they are created by companies, not by private individuals;
– operating funds – organizations that manage projects funded by the third party, but in some cases, they may also finance certain projects at their own expense;
– community funds – are, in fact, instruments for mobilizing financial and other resources from different sources to meet local needs;
– public funds are organizations that collect public funds to finance their own grant programs. Most community funds are also public funds.

In the European space, in our opinion, the structure of the non-state private funds' sector has the following classification (Toepler Stefan, 2016):
– private funds – organizations based on a financial endowment created by individuals or families (similar to US independent funds);
– operating funds – funds created for the management of certain institutions or projects (these funds are similar to the corresponding American organizations);
– funds financed by companies – independent legal entities and correspond to similar types of funds in the USA. These structures are created mainly by large companies (corporations);
– funds owned by companies – are created to manage companies, in particular, to prevent fight for control and among successors. For example, the Robert Bosch Stiftung GmbH owns Bosch;
– funds with public administration – organizations with a private endowment that is under the state administration;
– funds with state financing – government-created organizations, the funds for the endowment of which are also provided by the state.

Quasi-public funds

It should be noted that for some countries in the West, the practice of distributing a part of international assistance through funds, which are formally independent and non-governmental, has become traditional. At the same time, such funds can be called quasi-public, because to some extent their activities are under the supervision of the government. For example, support for the development of democracy is under the influence of a donor country's political model (Toepler Stefan, 2016).

The activity of quasi-public funds corresponds to the foreign policy of the state. Their activities are primarily aimed at supporting non-governmental organizations and civil society, where quasi-public funds show better efficiency. Thus, quasi-public funds are legally independent organizations, which are mainly state-funded and to some extent dependent on the state's policy (in particular, their activity is one way or another in line with the state policy in the relevant areas and under its particular supervision).

The use of funds has a number of advantages over official assistance: greater flexibility and innovation; faster reaction to change the working environment; less dependence on bureaucratic processes; lower reporting

requirements; the work of "independent" funds is less associated with interference in the internal affairs of countries.

A classic example of quasi-public funds is the German political foundations, which are also called "party" (viva). They began their active foreign activity back in the 1960s in Latin America, and later the German model of the international work of party funds was tested in post-authoritarian countries such as Spain and Portugal in the 1970s. The funds provided support to parties or individuals in other countries, which over time allowed the construction of appropriate partner networks around the main institutionalized political trends in Europe (Building Foundations, 05.06.2010).

German political foundations have become a model for imitation in other states. And now, such political funds are already established and operate in a number of Western European countries. In particular, in the 1970s, party funds were created in Austria, and in the 1990s the German model was introduced by the Netherlands (the strategic goal – to support the process of global democratization) and Sweden (the strategic goal – to support the development of democracy in the post-Soviet space). In 1992, the Westminster Foundation for Democracy began its activities in Great Britain. The largest parties in Spain in the 2000s also created the respective party funds to support ideologically close political parties abroad. Today, similar organizations are developing in the countries of Central and Eastern Europe, which had previously been the object of supporting the relevant western funds (Building Foundations, 2010).

Today in Ukraine, there is no special law that would apply to the activities of various types of funds. In 1997, the Law of Ukraine "On Charity and Charitable Organizations" was adopted, replaced by the Law of Ukraine "On Charitable Activity and Charitable Organizations" in 2012 (Law of Ukraine, 2013). The first charitable foundations operated in the format of associations.

According to the current legislation, a charitable organization is a legal entity of private law whose founding documents define charitable activities in one or several areas determined by this Law as the main purpose of its activity. The list of charitable areas includes (Law of Ukraine, Art. 3, 2013):

1) education;
2) healthcare;
3) ecology, environmental and animal protection;
4) prevention of natural and technogenic disasters and elimination of their consequences, assistance to victims of disasters, armed conflicts and accidents, as well as refugees and persons in difficult living conditions;
5) guardianship and trusteeship, legal representation and legal assistance;
6) social protection, social security, social services and poverty reduction;
7) culture and art, cultural heritage protection;
8) science and research;
9) sports and physical culture;
10) human and civil rights and fundamental freedoms;
11) development of territorial communities;
12) development of international cooperation of Ukraine;
13) stimulation of economic growth and development of the economy of Ukraine and its separate regions and an increase of Ukraine's competitiveness;
14) assistance in the implementation of state, regional, local, and international programs aimed at improving the socio-economic situation in Ukraine;
15) assistance in defence capability and mobilization readiness of the country, civil protection in emergency situations of peace and war.

According to the State Fiscal Service, in early 2016, more than 15 thousand charitable foundations and organizations were registered in Ukraine. There is a lack of information on the activities of a number of entities over the lack of their financial reporting. However, in 2015, 9500 entities reported spending on charitable programs worth almost 9.4 billion UAH. Almost one-third of all charitable spending fell to top 5 largest funds. At the same time, the largest 100 funds spent in the amount of 6 billion UAH (two-thirds of the amount indicated). Thus, the rest of the charitable foundations and organizations accounted for only 3 billion UAH or somewhat more than 300 thousand UAH on average per entity (Gulevskaya-Chernysh Anna, Yaroshenko Lesya, 2016).

In 2005, the first professional association of Ukrainian charitable foundations and associations was created – Ukrainian Philanthropists Forum (UPF). The founders of the UPF were the Initiative Centre to Support Social Action "Ednannia" and "Renaissance" International Foundation. This was done with the participation of international donors: the Charles Stewart Mott Foundation, the Institute for Sustainable Communities/UCAN, and the Polish-American-Ukrainian Cooperation Initiatives (Vinnikov Alexander, 2008). Today, the association has about 30 full members and about 10 associated ones. The UPF has been conducting a National Philanthropic Rating for several years. In 2016, only 89 charitable funds and organizations that publicized their tax reporting took part in the ranking. They accounted for 1.8 billion UAH or more than a quarter of the total spending on charity in 2016 (Gulevskaya-Chershin, 2017).

These data indicate that Ukraine is developing a private philanthropic sector; however, an assessment of the real scale, directions, and results of initiatives and projects supported by Ukrainian philanthropists needs special research.

Activities of American charitable foundations in Ukraine.

The vast majority of American charity organizations are relatively small institutions focusing on solving predominantly local problems. However, the US

nonprofit sector is large in size – as of September 30, 2017, the US Internal Revenue Service (IRS) register had 1.3 million charitable organizations (IRS Data Book, 2017). In the fiscal year of 2015, 16 209 thousand US charitable organizations that filed tax returns had assets worth 3.7 trillion USD and total revenues 2 trillion USD (Lanchukovska, 1997; Menger, 1870). It is worth noting that most of the income and expenditure of charitable organizations in the USA – the results of the work of non-profit health and educational institutions. A considerable part of the education and health sector in the USA – non-profit organizations.

Donor funding and grants were smaller. Funds and goods attracted by donors amounted to 204 billion USD, and issued grants – 172 billion USD; from a total of 172 billion USD for grants in 2015 fiscal year, American organisations received 89.6 billion USD, private individuals from the USA received 57.7 billion USD, and individuals and organizations outside the USA received 25.2 billion USD (Organizations Balance USA, 2015). Consequently, a small share of US charitable organizations' resources is directed abroad: less than 15% of total grants and slightly more than 1% of total revenues. However, 25 billion USD is an amount that exceeds the combined annual budget of foreign aid from Germany and Britain (the largest bilateral official donors after the USD).

In exchange for tax exemptions, US charitable organizations are required to submit detailed information on their work to the US Internal Revenue Service (Form 990). These reports are publicly accessible with some exceptions. In particular, information about recipients of grants outside the USA is a part of the reporting but is not made public as regards to public charities (Foundation Directory Online). Information on funding and geographic region of the recipient is published.

Activities of private foundations are regulated more thoroughly (for example, they must use at least 5% of their assets for charitable purposes) and they submit more detailed accounts.

In the USA, there are a number of organizations collecting information about the performance of charitable organizations. In particular, the Foundation Centre maintains a database of information on the overwhelming majority of the grants provided by the US private foundations (Foundation Directory Online). Information is collected from public accounts and grant information provided by some foundations directly to the Foundation Centre. The database contains data on grants provided in 2003-2015 and a more limited set of data for 2016, 2017, and 2018. For example, as of the end of August 2018, the database contains information about 2.3 million grants given in 2015 by 74 161 donors to 333 627 recipients worth 76.1 billion USD. Of these, 4 572 donors provided grants to 39 875 recipients for a total of 16.8 billion USD to work outside the USA. It should be noted that a significant part of grants in support of other countries is provided for American organizations – 6.7 billion USD out of 16.8 billion USD. The main areas of support were healthcare and education (Burakovsky, Angel, Kravchuk, Yuhimenko, 2018).

In general, US charitable foundations paid relatively little attention to Ukraine. As at the beginning of August 2018, the Foundation Centre database contained information about 1 521 grants worth a total of 103.5 million USD or 0.1% of the total amount of external grants from US private foundations. Is it a lot or a little? Given that Ukraine accounts for 0.6% of the world's population and 0.3% of world GDP, it is quite small.

It should be noted that the classification of grants by the geography of activities is conducted by the Foundation Centre on an algorithmic basis and, therefore, is not always accurate. In addition, a number of grants were issued to work in several countries. In order to estimate the volumes of funds directly received by Ukraine, we, first of all, excluded from the list those grants for which the geography of the work was determined incorrectly (Shtal, 1978; Stupak, 2009). Secondly, we estimated the share of Ukraine in grants that were implemented in several countries at the same time. According to our calculations, Ukraine in 2011-2018 received approximately 72.8 million USD from the CF of the USA (Gulevskaya-Chershin, 2017).

Within this article, we will analyse the support provided to Ukraine by American foundations since 2011. The largest private US donors in Ukraine during this period were the National Endowment for Democracy, the Foundation to Promote Open Society, the Charles Stewart Mott Foundation, and the Coca-Cola Foundation.

Table 1
The main donors of Ukraine according to the Foundation Centre database in 2011-2018

The name of the charity organization	Amount, million USD
National Endowment for Democracy	25,0
Foundation to Promote Open Society	11,1
Charles Stewart Mott Foundation	8,0
Coca-Cola Foundation	4,1
Nationale Postcode Loterij (the Netherlands)	3,0
Sigrid Rausing Trust (Great Britain)	1,1
Ukrainian Women's Fund (Ukraine)	1,1
Other	17,6

Source: Compiled by the authors based on Burakovsky I., Angel Ye., Kravchuk V., Yuhimenko S. (2018)

The volumes of annual support for Ukraine from US charitable foundations ranged from 9 to 14 million USD. The peak of revenues fell to 2014 – at the height of the Revolution of Dignity, and the least value was observed in 2012. Annually several hundreds of grants ranging from 10 to several million USD were issued. The largest

grant was a grant from the Netherlands lottery Nationale Postcode Loterij UNICEF for the amount of 3 million USD in support of homeless teenagers in Ukraine and Moldova (Gulevskaya-Chershin, 2017).

There are also a number of "specialized" donors in Ukraine that provide funding to organizations in a relatively narrow area, as well as donors that support only individual projects. For example, Tides Foundation has funded a number of AIDS treatment projects, inclusive education, and the protection of the rights of persons with disabilities. The Elton John AIDS Foundation supported the work on AIDS prevention among vulnerable groups of the population within several projects. Omidyar Network Fund supported the creation of the New Citizen platform and the work of the Public Television. Mama Cash has supported several LGBT organizations and women's rights organizations.

The Disability Rights Fund supported projects for people with disabilities such as inclusive education, adoption of regional strategies, access to justice, accessibility of the transport system, and others.

The Global Fund for Children supported rehabilitation and psychological support for children with disabilities, early intervention for children, and adaptation of orphanages' graduates. The total funding from the aforementioned donors amounted to 4.3 million USD (Burakovsky, Angel, Kravchuk, Yuhimenko, 2018).

A fair amount of money was drawn from US foundations in support of religious communities in Ukraine, support for religious education in Ukraine, support for humanitarian initiatives, in particular, for the Jewish community of Ukraine. The Tikva Jewish Community (3 million USD) and the Ukrainian Catholic University (2.3 million USD) were the most successful in attracting funding from American private donors and jointly attracted almost two hundred grants since 2011.

4. Conclusions

In dictionary literature, the concept of "welfare" is interpreted as all useful, serving human happiness, well-being – this is life in abundance, calm and happy state; charity – a willingness to do good, help the poor. In scientific literature, the charity was seen as a system of measures aimed at the organization of assistance to the poor in the presence of appropriate social and economic relations.

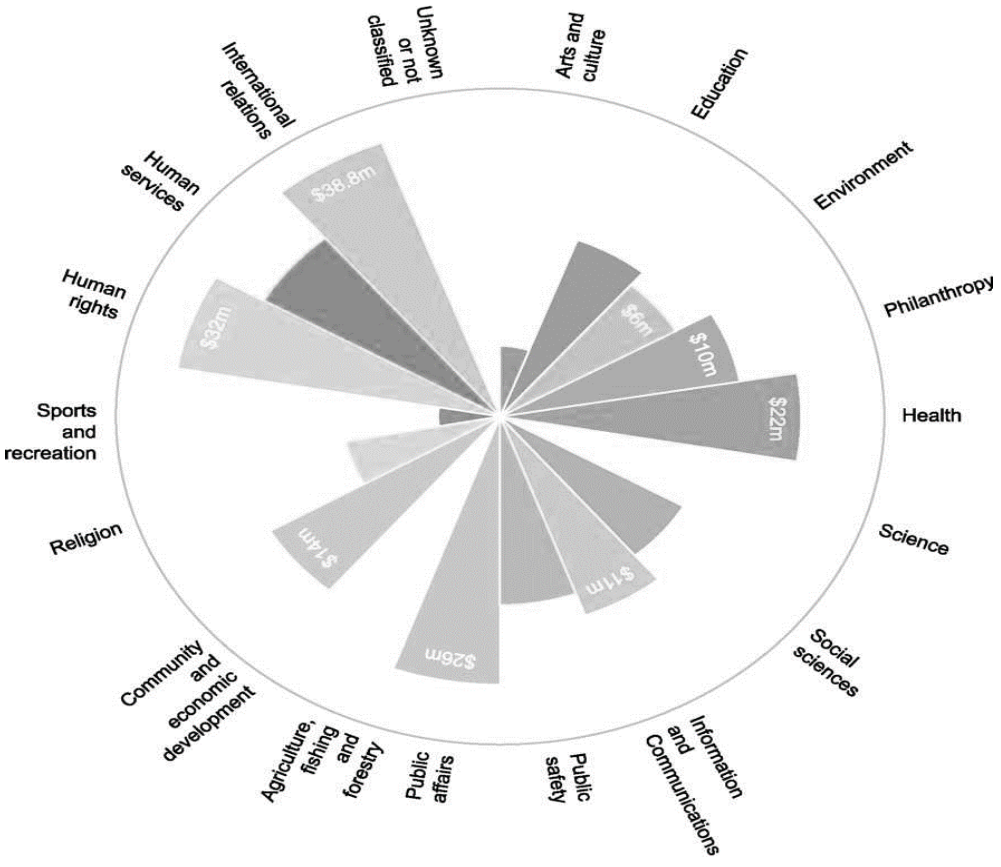

Figure 1. Main directions of grants in Ukraine for 2011-2018

Distribution of grants for goals is based on a certain algorithm. Each grant may belong to different target classifiers. Therefore, the total amount of distribution does not correspond to the total amount of grants. Significant amounts were allocated to medicine, the protection of human rights, and the development of civil society. Compiled based on Burakovsky I., Angel Ye., Kravchuk V., Yuhimenko S. (2018)

From ancient to modern times, charitable activity is carried out in the forms of patronage, sponsorship, volunteering, fundraising. Modern trends of charity include: increase of the non-profit sector and its internationalization; cooperation of charitable foundations, development of a social partnership with business, state bodies, and foreign funds; professionalization through the creation of network charity. In turn, charity abroad is characterized by growing professionalism, a variety of forms and programs of cooperation, the growth and expansion of the sphere itself and its importance for non-profit, in particular, socio-cultural activities. The undisputed leader in this area is the USA – the birthplace of modern sponsorship and fundraising.

In recent years, the process of institutionalization of charity has intensified in Ukraine: the number of specialized funds is increasing; there appear public organizations whose tasks are to coordinate the efforts of various charitable actors.

On a global scale, the foreign activity of the US foundations is significant, and the expenditures exceed the official foreign aid budgets of many countries. However, their presence in Ukraine is relatively low. The volume of support is negligible compared to official support amounts: according to the OECD, the number of grants actually received by Ukraine from other states and multilateral donors in 2011–2017 amounted to more than 5 billion USD while less than 0.1 billion USD came to Ukraine from US foundations. But this does not exclude the role of private donors in solving certain problems, in particular, in terms of supporting civil society, protecting the rights of vulnerable groups of the population, etc.

In order to improve charitable activities in Ukraine, many more steps must be taken in the sphere of harmonization of the current legislation, the development of state and private mechanisms of socio-economic policy, tax legislation, social and spiritual support of the needy groups of the population, whose number in the country is increasing year by year. And charity should not become the main mechanism for maintaining the living standard of the population; it should become an auxiliary mechanism for the development of the socio-cultural potential of the population, preventive and health complexes, and the scientific and educational level.

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CRIME IN FOREIGN ECONOMIC SPHERE IN THE POST-SOVIET STATES

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Abstract. The *purpose* of the article is to reveal the content of organized crime in foreign economic sphere and the factors that determine the state and trends of its development. It is revealed the influence of corruption as a form of organized crime on foreign economic activity, which is illustrated by examples of illegal actions in this area. It is concluded that organized crime in foreign economic sphere essentially goes beyond the limits of the customs regime violations, evasion of customs duties and other payments and threatens the functioning of the whole sectors of post-Soviet countries' economies. *Methodology.* The study is based on the economic and criminological approaches developed by J. Knorih (Knorich, 2004), as well as S. Zedeg and N. Gustavson (Susanna Thedeg, 2009; Susanna Thede, 2012). It should also be noted the studies conducted by experts from international organizations such as the World Bank (S. J. Hellman, 2000), Transparency International (Transparency and Corruption, 2016) and the Organization for Economic Cooperation and Development (Quantitative Evidence on Transparency in Regional Trade Agreements, 2013). The consideration of issues related to the criminalization of foreign economic relations is based on the methods described in the works of J. Cassar (Cassara, 2015), K. Nordstrom (Nordstrom, 2007), M. Naim (Naim, 2006) and P. Shadri (Chaudhry, 2007), as well as in the author's works on countering corruption and organized crime (Hrechyn, 2015). *Result of the study reveals* the essence of crime in the foreign economic sphere as a form of corruption that poses threat to the economic security in post-Soviet states. This will allow us to assess the scale of the problem and evaluate appropriate responses.

Key words: foreign economic sphere, corruption, legalization of illicit gains, organized crime.

JEL Classification: A14, F20, H26, K42

1. Introduction

Investigation of offenses in the sphere of foreign economic activity mainly focuses on the issues of the impact of corruption on customs authorities activities and the certain offences committing such as excisable goods smuggling, evasion of customs duties and payments. In our study, we aim to disclose the essence of this criminal activity in the context of economic security ensuring in former Soviet Republics.

Our developments point to the need to reveal the multilevel effects of corruption and foreign economic relations and, through it, on the economy of the state as a whole. Studies conducted so far do not reveal this problem in its entirety. Moreover, the conclusions drawn from the results of these studies give the impression that the decriminalization of foreign economic sphere is possible through the mere reduction of corruption in customs authorities, which, in our opinion, does not correspond to the reality and does not take into account the multilevel and multidisciplinary nature of this problem.

International trade covers a wide range of relations, including the receipt and processing of raw materials, production of goods, various types of financial transactions that take place outside the customs border, affect the functioning of the economy as a whole and are vulnerable to corruption. Thus, the definition of customs authorities corruption level will not provide a complete picture of the illegal activities in this area, and the reduction of corruption risks in the customs authorities will have only a limited result for foreign economic relations decriminalization.

In the given study corruption is considered wider than the traditional approach that interprets it as a form of office abuse. We consider this phenomenon as a form of organized crime that covers a wide range of relations in the field of economy, politics and life of society as a whole, is connected with the criminality intended to influence the economy with the use of administrative power capabilities. We are talking about the integration of criminality, corrupt representatives of government and private sector, the aim of which is the use of illegal methods for personal enrichment.

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2. Impact of corruption on in the foreign trade

In post-Soviet space, organized crime is an alliance of the state, market and criminality, i.e. the political, business and criminal entity (Kupatadze, 2012). There is state seizure by organized crime, where the main players are oligarchs (Iwasaki, 2007). In countries where such seizure is carried out by a political or business elite, it is formed the so-called "entrenched economy", in which officials and politicians privately sell public goods and opportunities to receive rent for individual firms (Hellman, 2000). In some cases, the relationships between criminality and officials are so tight that we can talk about "kleptocratic interdependence", which is a set of ties that operate at the national and international levels, motivated by material benefits and power. In itself, such relationships are not something new, but in the context of globalization they begin to influence a wide range of security issues in the field of politics and economics (Greenhill). Therefore, anti-corruption measures here should be aimed primarily at the destruction of systemic links between criminality and government, rather than at identifying and prosecuting certain corrupt officers.

The spread of corruption in the foreign economic sphere forms a peculiar status of the country, which is taken into account by foreign actors when conducting business. As follows from the study by T. Soureyd, regardless of the corruption level in the country of origin the company treats corruption in the host country as one of the game rules that allows it to participate in corruption transactions, when large firms more often face greater corruption and state seizure and smaller firms – administrative corruption. The interdependence between the size of firms and the type of corruption is determined by the value of contracts that are concluded by the firms and the ability of the latter to reach a certain level of problems solving that accompany the conclusion and execution of contracts (Soreide, 2006).

Criminalization of the economy leads to a blurring of the boundary between legal and illegal, creating a situation in which illegal economy serves as a source of finance for a significant part of the population (Development Responses to Organized Crime, 2015). This, in turn, leads to a spread of criminal practices in all areas of public relations, distortion of the basic norms of the society.

In the context of economic relations, Transparency International proposes to consider corruption as a phenomenon that impedes trade and is a kind of illegal tariff (Transparency and Corruption, 2016). Studies indicate that the level of transparency in regional trade agreements increases bilateral trade by 1% (Iza Lejárraga, 2013). According to the EU estimates the region's economic losses from corruption amounted to 120 billion euros per year, which is almost equal to the annual budget of the European Union (EU Anti-Corruption Report, 2014). According to a study by the EU Center for Economic Policy Research (Reducing Transatlantic Barriers to Trade and Investment, 2013), the potential benefits from the Transatlantic Free Trade Agreement conclusion will number a similar amount each year. That is, measures to ensure transparency and good governance in the field of business and international trade are just as important from an economic point of view as conclusion of large-scale trade agreements (Transparency and Corruption, 2016).

On the other hand, conducted studies confirm that the liberalization of foreign trade can contribute to reducing the corruption level in post-Soviet countries and improving the quality of governance in general (Dutt, 2009). It is well-known that corruption is one of the factors that undermine free trade. Studies indicate that the impact of corruption is stronger for exporting countries than for importers of certain goods or services. Instead, corruption in the foreign economic sphere contributes to increasing imports to a corrupt country, creating shadow supply channels for this (Eelke de Jong, 2011).

At the same time, the Doing Business study 2017 concludes that a high level of international trade is also directly related to the low level of corruption in the country (Doing Business 2017, 2017).

Foreign trade is extremely important for the economies of former Soviet Republics in general and Ukraine in particular, the total import and export of which make up 108% of GDP (2017 Index of Economic Freedom). At the same time, the level of foreign economic sector criminalization remains extremely high and corruption remains the main obstacle to business in the given states (The Global Competitiveness Report 2016-2017, 2016).

According to the World Bank study, post-Soviet states need to improve foreign economic sector by building more productive private sector and forming more complex export structure with a higher value added. In the experts opinion it is hampered by infrastructure weakness, market structure characterized by a high level of concentration and monopolization, as well as weak land management. Infrastructure improving involves strengthening the opportunities for domestic investment and improving the management system and ensuring transparency (Ukraine. Systematic Country Diagnostic Toward Sustainable Recovery and Shared Prosperity, 2017).

There are a number of schemes that are used by the foreign economic activity subjects to avoid taxation. All of them include the involvement of corrupt state authorities' representatives.

For example, an exporter resident achieves a tacit agreement with a foreign company – the recipient of the goods for a contract at a pre-overstated price. In particular, the amount of advance payments is increased and fictitious prepayments for transactions are made. Then the buyer pays half the difference between the contract price and the real value of the goods.

The simplest shadow scheme is the registration of the inventory items acquisition from fictitious firms

and their export to distant states and territories. In fact, the movement of such values, transportation and crossing the border do not occur, contractual and import relations with country's residents do not exist. The calculations are simulated through commercial banks specializing in conversion services (using bill schemes, etc.). The role of intermediaries is given to enterprises in underdeveloped countries. The outlined mechanisms are primarily used by large enterprises, foreign economic activity subjects, especially those that constantly import goods, since these operations allow repayment of the obligation to pay "import" VAT with a fictitious tax credit.

It is also widespread the scheme of price increase at the expense of the cost of fictitious production (for example, receiving the components from fake companies), in which the producer enterprise is declared bankrupt and liquidated before the beginning of export operations. As a result, VAT is refunded directly and the account is made through a tax bill when performing import operations.

The scheme is implemented through the use of banking tools. The same bank serves all the basic calculations in the process of its implementation, allocates credit resources, emits securities (operations to provide and repay loans, in relation to bank securities is an integral part of the financial mechanism), provides currency calculations. Only an insignificant part of the transaction volume, which is usually equal to the amount of illegal profits, is separated and passed through another bank institution – the partner of the main bank. The whole chain of financial calculations is realized within one day. The specified mechanism is controlled by one bank – the financial scheme operator. Such activity is systematic and, in fact, is considered as a kind of banking service.

When applying this scheme, the exported goods are subsequently returned to the territory of the particular country and sold at prices ten times lower than the export price. Then the goods are legalized overpriced through fake and transit firms and used in the re-export scheme.

Criminally gained income is converted into cash and distributed among the participants of the scheme. The balance is transferred to the account of the goods importer, from where it is returned as the official revenues for the exported goods.

According to another scheme, for example, nickel allegedly for processing was imported in the particular country as a toll-free raw material, which after was sold on the domestic market through a network of specially created fake companies. Such import involved the receiving by the importer of a license for processing, which he really could not carry out due to lack of production capacity.

Since the raw material was imported as if it were exclusively for processing without realization on the territory of the country, the customs regime "import 54" was applied to it, in which the actual importer did not pay neither VAT (20%) nor customs duties (13%). In fact, concerning this operation the customs regime "import 40" should be applied which provides for such payments.

Subsequently, according to the given scheme, non-ferrous scrap metal was illegally collected, in which also fictitious firms without appropriate license were involved. The purchase of metal was carried out on a black market, while the requirements regarding the source of origin of this raw material for obvious reasons to sellers were not put forward. Non-ferrous metals were being melted at the bastards, which were further exported under the guise of an imported nickel processing product. Herewith the export fee also was not paid.

Thus, the state not only lost the money that would have been paid when importing the metal for its processing and sale in the domestic market of the country. But nickel was sold at a dumping price that undermined free competition and damaged the entire metal processing industry. Non-ferrous metals necessary on the domestic market of the country were exported which also caused substantial damage to the state's economy. The black market of non-ferrous metals was strongly stimulated that contributed to their robbery and illicit circulation.

As a result of this and similar actions, there is a threat not only to the foreign economic sphere of post-Soviet states, but also to the economies of the states as a whole. Smuggling is only one of the components of this scheme. The leadership of the highest public authorities usually is involved in conducting such fraudulent actions. Instead, the role of corrupt customs officials is minimal and consists solely in assistance to accelerate import of nickel in the country, which does not have a critical importance for the implementation of this scheme.

Similar schemes are fixed not only in the metal processing, but also in the chemical industry and the agro-industrial sector.

One of the crime manifestations, closely related to corruption in the foreign economic sphere, is the illegal use of citizens for testing drugs that do not have appropriate license. Thus, in 2013, a scheme was discovered according to which new drugs being tested by the manufacturer on their efficacy and possible adverse effects were illegally imported into one of former Soviet Republics and subsequently tested on the patients who were not aware about the possible threat for their lives of receiving these drugs. The given operations provided for the existence of corrupt relations in the leadership of the state's customs and health authorities who received bribes from corporations for the use of the citizens for the testing drugs. At the same time, neither the patients nor the state budget of the country received any funds for such tests. It should be noted that in some cases, such tests were also conducted on juvenile patients on

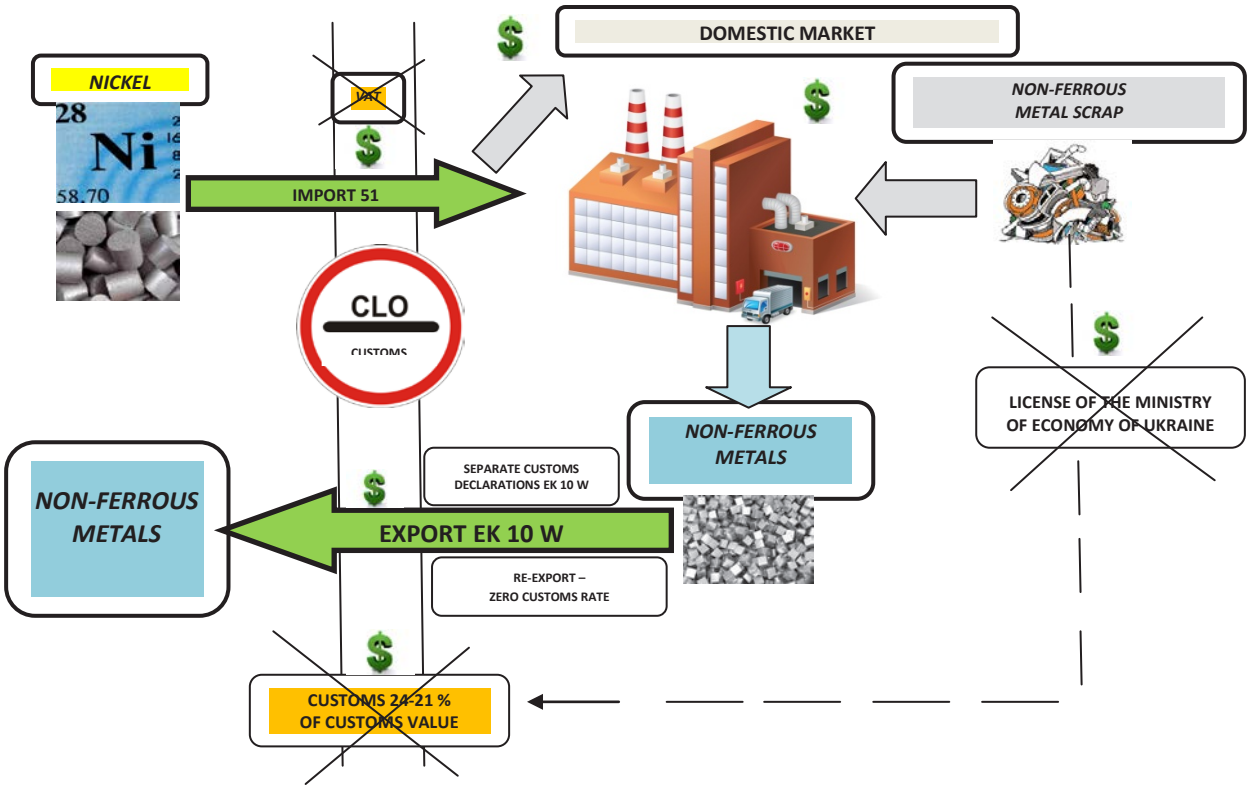

Figure 1. Smuggling scheme for the import of nickel and the export of non-ferrous metals

the basis of pediatric medical centers. The aforesaid points out, that corruption in foreign economic sphere threatens not only the economic potential of any post-Soviet state, but also poses a direct threat to the life and health of its citizens, the gene pool of the whole nation.

3. Findings

The magnitude and extent of corruption in post-Soviet states have transformed this phenomenon into a major threat to their systems of national security. Corruption in the field of foreign economic activity is a particular threat, undermining the country's fiscal policy, forming a negative investment climate, which makes it impossible for the state to carry out any effective economic and social policy, destroys the image of the state in international relations. The weak effectiveness of anti-corruption measures in general and in the foreign economic sphere, in particular, is generally recognized. To a large extent, this is due to not only weak effectiveness of law enforcement measures, but also to the corrupt components laid down in the construction of this activity at the national level, the weakness of the institutional system of the state as a whole, as well as the inadequacy of anti-corruption policy to the current state of affairs. Such policy should take into account changes in the social nature of corruption crimes, the emergence of new corruption actors and the detection of previously unknown ways of committing them. Systemic corruption in transitional former Soviet countries is characterized by a combination of state seizure by a highly monopolized private sector or a strong bureaucracy, business seizure and administrative corruption.

4. Conclusions

The criminalization of the foreign economic sphere is caused by a wide range of factors, among which the internal ones prevail, which are connected with the institutionalization of corruption in the state authorities and administration. Criminal activity in this area is carried out by powerful corrupt and criminal organized mafia-type structures that are capable of controlling the whole spheres of economic and political life of the country, which have sufficient resources to influence public consciousness through controlled media. As a result of their activities, the state loses at least 50% of income related to the taxation of this economic activity. Conditions are created for smuggling of socially harmful goods, such as weapons, counterfeit medicines, drugs and psychotropic substances.

Such criminal activity has become systematic and one of the most acute threats to the national security of former Soviet Republics, undermining their economic development, depriving the budgets of funds necessary for the development of the states, the functioning of their institutions and social support of the population.

Taking into account the corruption risks existence and the degree of corruption threat for the economies,

ensuring transparency in the functioning of the foreign economic systems of post-Soviet states should be considered as an absolute priority for anti-corruption measures. Countering corruption should be aimed at destroying the systemic relations between criminality and authorities and not limited to identifying and prosecuting certain corrupt officials. This in turn includes the involvement of civil society and international experts in the implementation of programs to ensure integrity in this area. The dissemination of anti-corruption measures to institutions in both the public and private sectors is also important.

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FINANCIAL AND LEGAL NORMS: LEGAL MEANS AND MECHANISM OF IMPLEMENTATION

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Abstract. *The aim* of the article is to disclose problematic issues, which are connected with financial and legal norms, as well as legal means and the mechanism for their implementation. *The subject of the study* is the financial and legal norms: legal means and the mechanism for their implementation. *Methodology.* The study is based on the dialectical method of scientific knowledge and general scientific methods, which are based on it, such as: analysis, comparison, analogy, induction and others. Results of the conducted study have shown the theoretical aspects of the implementation of financial and legal norms and their features. Particular attention is paid to the implementation of the law, which takes one of the main places among the pressing problems of legal science, despite the fact that a special theoretical analysis of the implementation of financial law in the legal literature is quite rare. During the analysis of this issue in the presented study, the question about the content and number of legal means in the mechanism of financial and legal regulation is set in the first place. Another problem, which is studied, is the impact of various determining factors on the procedure for the implementation of financial law. *Practical impact*. The author analyses the features of the forms of implementation of financial and legal norms, the legal regulation of relations developing in connection with the observance, use, execution, and application of these norms on the bases of the general theoretical approaches of law. *Correlation/originality.* After the legal analysis and analysis of the scientific literature, it was defined that the mechanism for the implementation of financial and legal norms today faces a number of unresolved problems in financial relations.

Key words: implementation of financial law, financial law, compliance, use, execution, application of financial law.

JEL Classification: F36, F37

1. Introduction

Today, the globalization of society contributes to the positive interpenetration of cultures, the strengthening of the country's potential by joining the world's best intellectual achievements, the study of historical experience in solving socially important issues (Sevruk, Pavlenko, 2015). Therefore, the radical socio-economic transformations that have taken place over the past decade have led to both positive and negative changes in modern Ukrainian society (Pavlenko, Sevruk, Kobko, 2017).

In today's conditions of functioning of the world economy, each country is trying to achieve a high level of socio-economic development. As globalization processes generate growing demands on the parameters of the national economy, Ukraine must develop a strategy for its development that can adequately reflect our state by means of macroeconomic indicators and the living standards of the population (Chorna, Chornyi, Shandruk, 2018).

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 being implemented. The influence of the main political, economic, social, and technological aspects of the external and internal environment on the Ukrainian economy is determined. For Ukraine, the EU is an important strategic partner, including in the investment and foreign trade spheres. Therefore, the future of our country in the European space will be determined by signing the Association Agreement. It is proved that the EU as an integration association will have the status of a leader in international economic relations; therefore, for Ukraine as a European state, it is an important step to form a new strategy for the economic development of the EU (Yunin, Sevruk, Pavlenko, 2018).

To date, Ukraine has proclaimed Euro-integration a key priority of economic policy. The need to develop the integration strategy of Ukraine was caused by the desire of our state to meet the requirements of the modern world economic system, this is a way of modernizing the economy, overcoming technological backwardness, attracting foreign investment and the latest technologies, creating new jobs, increasing the

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competitiveness of domestic producers, and entering the world markets. As a result of the changes taking place in society, along with the positive ones, all of the individual negative tendencies appear, which greatly impede the development of statehood in Ukraine (Mohilevskyi, Sevruk, Pavlenko, 2017).

A serious concern is caused by problems in the mechanism of financial and legal regulation, the influence on the order of implementation of the rules of financial law of various determinants, which determined the relevance of the topic.

2. Analysis of recent research and publications

It is common knowledge that the problem of implementing the rules of law and finance, in particular, is far from new. However, the complex analysis and study of the norms of financial (tax) law and their implementation (law enforcement) were developed very recently. However, despite this aspect, a wide range of issues in this area remains unresolved. Representatives of both the theory of law and branch sciences were engaged in the development of this topic, for example, S. Alekseev, P. Nedbaylo, V. Nersesiants, A. Korenev, N. Kucheryavenko, M. Marchenko, I. Mikhailovsky, G. Tolstopyatenko, R. Khalfina, L. Yavych, and others.

3. Main material

In today's theory of law, tradition has developed the idea that the realization of law is a definite process, the transformation of the requirements of legal norms into concrete actions of subjects. These prescriptions are made through lawful conduct, which does not go beyond the scope permitted by law (regulatory acts). Such a vision of the problem focuses on the legitimacy of the activities of the subjects and on the standard of the said lawfulness – the norm, which is enshrined in the law (another act), while regardless of the understanding of the right of the researcher (narrow or broad). The norm acts as the main installation, which in a given situation will determine the behaviour of subjects of the application of normative provisions.

The norms of financial law, as well as the norms of any branch of law, are a general rule, a certain scale of due or proper conduct established by the state and protected by special state methods. These norms fulfil the function of the regulator of social relations. Financial and legal norms differ from the norms of other branches of law in that the subject of their regulation are the social relations that arise in the process of planned formation, distribution, and use of the state (local governments) of public money necessary for the state to carry out its tasks and functions. Most scholars in the field of financial law point out that the rules of financial law are always linked with the regulation of relations in relation to the distribution, control and stimulating functions of the state in the process of financial activity of the state in the distribution of the social product and national income in cash (Horbunova, Hracheva, 2003). None of the financial-legal norms act in isolation, without interaction with the rest or with a group of other financial law. The indicated norms are in interaction and interconnection and form a single branch, namely: financial law.

Analysing the issues of implementing the rules of financial law, the author first of all, faces the problem of the implementation of the rules of law in general. At the present stage, there is a large amount of educational, scientific monographic literature devoted to the analysis of this issue. It is common knowledge that the rules of law require their embodiment in life, their realization, so as not to become dead, formally defined rules. M. Marchenko rightly emphasizes the fact that the legal norm exists and makes it possible to know about itself only when it is not only formally adopted, compiling the content of a normative legal act, but also in reality, in the behaviour of people and their organization institutes, is carried out (Marchenko, 2004). The famous scientist L. Yavytch deliberately points to the special role of the realization of law and draws attention to the fact that the exercise of law has always been, and will always be, while it is in society, a special way of life of the legal form of social relations. In the opinion of the author, the exercise of the right is a way of its existence, action, fulfilment of its main social function. One cannot understand the right, if we distract from the mechanism of its realization in the life of society (Yavych, 1976).

It should be borne in mind that the provision of subjective rights to the participants in social relations, the assignment of legal obligations to them is related to the effect of legal norms. It is common knowledge that the law can act and be implemented in various forms, taking into account information psychological and instrumental aspects. At the present stage, the implementation of the norms of the financial (tax, budget) law can be considered rather weak in the whole legal chain, since the existing stereotypes of the act's act, due to the fact of its adoption or legal disobedience of citizens, as before, are deformed by their legal consciousness and behaviour. The manifestations of legal nihilism remain stable enough. Also, various financial and legal acts are being implemented improperly.

The financial and legal norms are one of the levers, with the help of which the set goals are achieved. The content of these rules is entirely dependent on the goals that the legislator sets himself in developing these rules. The condition for the realization of the norm of financial law can be considered the achievement of its final result: ensuring the formation, distribution, and use of public funds of the state, the implementation of financial control, the attraction of violators of financial and legal norms for liability, etc.

In the scientific legal literature, the following forms of the implementation of the rules of law are traditionally distinguished by the nature of righteous acts: (a) observance of prohibitions (involves passive behaviour of subjects, refraining from prohibited acts); (b) performance of duties (active behaviour of subjects in the execution of legal obligations of positive content); (c) the use of subjective law. Some scholars sometimes distinguish the 4th stage – the application of law as an active-power activity of the competent authorities (sometimes individuals) by the decision within the framework of the legal rules of specific cases, the publication of special legal acts.

In modern legal literature among scholars – legal scholars there is no unanimous opinion regarding the allocation and classification of forms of the realization of law. Thus, V. S. Nersesiants distinguishes: 1) from the point of view of the level (depth) of the implementation of the provisions contained in the regulations: the implementation of general provisions contained in the preamble of laws, articles, etc.; realization (outside of legal relations) of general norms establishing the legal status and competence; realization of specific legal relations of specific legal norms; 2) on the subject of realization of the right: individual and collective; 3) in the nature of righteous acts, due to the content of the legal norm: the observance, execution, use and application of law (Nersesiantsa, 2006). On the contrary, L. Yavich highlights several ways of exercising the right, namely: implementation of legal prohibitions, the use of legal rights and the fulfilment of legal obligations, the application of the rules of law, which involves state power interference in the process of implementing legal regulations (Yavych, 1976). According to M. Marchenko, for legal norms, there are specific methods for its implementation, the main forms of which are the use of the law, the fulfilment of obligations, the observance of prohibitions, the application of legal norms. The author rightly points out that there are two forms, namely: the use of law and the fulfilment of obligations, which represent the realization of legal relationships (Marchenko, 2004). Famous scholar S. Alekseev highlights only three forms of realization of the law, namely: execution, use, observance. According to S. Alekseev, the use of law is a special category occupying a special place. The application, in the opinion of the author, is not a stage of implementation. It characterizes not the outcome, but the process of implementation, participation in this process of the competent authorities, its provision and legal adjustment through the individual state and government activities of these bodies (Alekseev, 2009).

It should be noted that the implementation of financial and legal norms is carried out by the state as a whole, authorized by that state and local authorities and citizens. The implementation of the rules of financial law is carried out through a number of different methods, namely: 1) legal facts; 2) acts of application of the rules of financial law; 3) explanations and interpretations of financial and legal norms, etc. In our opinion, for the state, the purpose of realization of the financial-legal norm is its interest in the sphere of fiscal saturation, systematic distribution, effective use of public money funds, regulation of economic processes.

Traditionally, in the theory of law, there was an opinion that the implementation of the rules of law is possible exclusively through legal relationships or outside legal relationships. It should be noted that the rules of financial law are aimed at regulating actual social relations, but this process they carry out through financial legal relations, which play the role of an intermediate link between the financial-legal norm and public relations, allocated as an object of legal influence. The financial legal norm not only enshrines certain interests of the participants of the relationship and displays compromises in their collision but also objectively anticipates measures for their implementation. In realization of a specific norm of financial law, it is possible to define the subjects of legal relationship, the object of legal relationship, the complex of mutual rights and responsibilities, the responsibility of certain subjects.

In our view, the implementation of the rules of financial law can be implemented in 4 forms, namely: compliance, execution, use, and application. Let's consider the most important features of them:

1. **Compliance** with financial and legal norms of law is not a violation of the established prohibitions. In other words, compliance acts as such a form of implementation of financial and legal norms, in which subjects of financial law refrain from prohibited financial action. As a rule, compliance with prohibited norms is enforced. For example, the current financial legislation of Ukraine contains a provision that subjects are prohibited from conducting currency transactions without acquiring licenses of the National Bank of Ukraine. The National Bank of Ukraine issues individual and general licenses for the execution of foreign exchange operations that fall under the licensing regime in accordance with the current legislation. In addition to this, the norm, which is contained in Art. 44.1 of the Tax Code of Ukraine (Nalohovui kodeks Ukrainy, 2011), which prohibits taxpayers from forming tax reporting, customs declarations based on data not verified by primary documents, registers of accounting, financial statements, other documents related to the calculation and payment of taxes and fees, which are provided for by law.

2. **The implementation** of financial and legal norms is the active observance of the requirements of these norms. As a rule, enforcement obeys the binding norms. In financial law, most norms are binding because there is an interest of the state in the financial provision of its activities. The essence of execution consists of conscious and active compliance with financial regulations. Yes, the implementation of the norm of Art. 64.5 of the Tax Code

of Ukraine, which obliges permanent representations of non-residents and separate divisions of foreign legal entities to apply within 10 calendar days from the date of their state registration (accreditation, legalization) in the established procedure or at the beginning of conducting business activity, if such registration is not obligatory in accordance with the legislation, to the bodies of the state tax service at their place of residence. The implementation of this norm consists of the active and purposeful actions of the obligated subject, who must apply to the tax authorities within the set deadlines with a statement on registration. The inactivity of the taxpayer qualifies as an offense that is, under the execution and compliance with the rules of financial law can be understood as the subordination of the subject of the right of financial and legal claims facing him. This is either the actions of the subjects of law for the implementation of obligations binding on them, authorizing financial-legal norms or refraining from actions prohibited by the rules of financial law. It is necessary to point out that actions aimed at compliance with the rules of financial law are rather different in their specific content since there is a certain difference between the specific content of the rules of financial law. And some of these actions are of a legal nature, while others do not have the same quality. As a rule, the implementation of binding and empowering norms is related to the need for legal action. For example, the implementation of the norm, which obliges to pay taxes in a timely manner and in full, provides for the implementation of legal actions (provision of documents on tax accounting and tax reporting).

3. **The use** of norms of financial law is realized at the discretion of the subject in the implementation of the requirements of financial and legal regulations. Use means the exercise by subjects of financial law of the subjective rights granted to them in the form of permissions, powers. For example, the use is made of the norm set forth in Article 17 of the Tax Code of Ukraine, which enshrines the rights of taxpayers. Thus, a taxpayer may represent his interests in the supervisory authorities on his own, through a tax agent or an authorized representative.

4. **The application** of the rules of financial law consists of a wide range of power actions of the bodies of financial activity in the manner established by law. One of the main forms of law enforcement is law enforcement. The law enforcement is carried out by the competent authorities of the state and local self-government and expressed in the form of a special decision, which establishes on the basis of financial and legal norms – the rights and obligations of the participants of a particular financial legal relationship. For example, the application implements the norm of Art. 95 of the Tax Code of Ukraine on the forced collection of tax at the expense of the property of the payer. Thus, the body of the State Tax Service carries out, for a taxpayer and in favour of the state, an arrangement for repaying the tax debt of such a taxpayer by collecting funds that are in his ownership, and in case of their insufficiency, by selling the property of such a taxpayer who is in a tax pledge. The need for this form of implementation of financial law is due to the fact that the state plays a leading role in determining the circle and status of financial law subjects (Rossykhyna, 2013).

3. Conclusions

Before the young Ukrainian state, there are very difficult and important tasks of the task in the sphere of the economy. Our solution to our decision depends to a large extent on our progress towards integration into the European Union. Therefore, the realization of the economic program of the newest Ukrainian state must become the blood of every citizen. Therefore, Ukraine first of all should pay attention to the issues of combating corruption and returning citizens confidence to the state authorities, to the judicial and law-enforcement system. Until then, this is fraught with economic instability and the outflow of financial capital (Yunin, Sevruk, Pavlenko, 2018).

Due to this implementation of financial-legal norms is accompanied by a huge number of legal conflicts caused by various reasons. At the same time, the process of improving the financial legal system cannot completely eliminate conflicts of legal norms or contradictions between individual legal acts. The desire of the state to increase the volume of public financial activities and regulating its legal acts will inevitably give rise to legal realization disputes constituting the concept of a legal conflict. It is possible to resolve disagreements or maximally neutralize their negative consequences through the use of a mechanism for resolving legal conflicts (Krokhyna, 2008). The construction of a system of financial law on the basis of objectively existing financial relations allows the correct application of financial and legal norms and thus contributes to strengthening the legality and compliance with the financial law of regulatory and safeguarding functions.

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LEGAL REGULATION OF LIABILITY FOR OFFENSES IN THE FINANCIAL SPHERE IN THE EU COUNTRIES AND UKRAINE: COMPARATIVE ANALYSIS

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Abstract. *The aim of the article* is to conduct a comparative analysis of the legal principles for liability in the financial sphere in the EU and Ukraine and to define ways of domestic legislation improvement on this basis. *The subject of the study* is the experience of European countries in the state regulation of liability for financial offenses. *Methodology.* The study is based on a comparison of foreign experience in the legal regulation of liability for financial offenses on the example of European states with the status of the national tort law in this area. The use of general scientific and special scientific methods and techniques of scientific knowledge enabled to characterize the national experience of the legal regulation of legal liability for committing financial offenses by the coverage of the provisions of the Criminal Code of Ukraine, the Code of Ukraine on Administrative Offenses, and the Tax Code of Ukraine, as well as its comparison with the experience of the legal regulation of liability for offenses in the financial sector on the example of France, Germany, Latvia, Spain, Sweden, Greece, and other EU countries. *The results* of the comparative legal study revealed that contrasting the EU member states, the national model of the legal regulation of liability for offenses in the financial sector is characterized by multi-levelness and varying degree of severity of punishment. *Practical implications.* It is proved that the mechanism of the legal regulation of liability for financial offenses in Ukraine is more improved than in European countries because of the legal provisions with a strict codification of financial offenses, their differentiation into administrative delicts and criminal offenses that enables to impose milder state sanctions on those acts that do not pose a significant social danger. *Relevance/originality.* A comparative legal study of the experience of the legal regulation of liability for financial offenses provides a better understanding of the prospects for the development of national administrative tort law in this area.

Key words: legal liability, financial offenses, legal regulation.

JEL Classification: G17, O16, P34

1. Introduction

Violation of a stable social order always has a negative undertone whatever the intensity of such violation and severity of its consequences are. This aspect is particularly acute in the twenty first century when society is expanding its sphere of existence and the number of objects of influence and research. One of the most important areas of human life is financial since it involves the interests of all social formations, from individual to the entire state. Moreover, the financial sector is important because it involves relations associated with material values, more often with high volumes of funds, which are financial resources in totality. Without accurate managing and using the latter, any state will not be able to function properly; moreover, violated financial relations lead to disorder in a country. Therefore, for the protection of financial relations, legal regulations that form the mechanism of liability for their violation are developed and adopted.

Furthermore, for the improvement of the legal regulation of liability for offenses in the financial sector, these issues require both scientific development and analysis of the foreign experience of European states. According to P.S. Melnyk, foreign experience contributes to expanding our perceptions of the legal phenomena under the study; helps consider this or that problem from another angle, compare own achievements with the achievements of foreign colleagues; prevents wasting time to solve problems that have already found solutions in foreign publications. In addition, the extraordinary scientific relevance and practical utility of any comparative legal research are undeniable (Melnyk, 2010). Therefore, to highlight the positive aspects of the national system of legal regulation of liability for offenses in the financial sphere, as well as issues that need improvement in this regard, it is necessary to conduct a comparative analysis of the foreign experience of the EU and Ukraine on this issue.

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The theoretical basis of this study is the achievements of many academic scholars in scientific research on various aspects of liability for offenses committed in the financial area, in particular, S. V. Kivalov, Z. M. Budko, A. Y. Ivanovskyi, I. Y. Slubskyi, Yu. P. Bytiak, A. T. Komziuk, M. I. Melnyk, V. K. Kolpakov, T. M. Yamnenko, A. M. Bandurka, A. M. Klochko, R. S. Satuev, V. M. Popovych and others.

2. Main material

To begin with, a comparative analysis requires defining the concept of "responsibility" and "offense". It should be noted that the etymology of the word "responsibility" means the obligation imposed on someone or taken on oneself to be responsible for a certain area of work, a case, for someone's actions, deeds, words, leading to taking guilt for possible negative consequences (Busel, 2005; Slovar russkogo literaturnogo yazyka).

It should be noted that the term "responsibility" is the subject of the study of many sciences that confirms its multidimensionality and significance for various aspects of social reality. Philosophy studies responsibility as a concept that reflects the objective, historically specified nature of the relations between a person, a collectivity, and society from the perspective of conscious implementation of mutual requirements (Illicheva, Fedoseev, (Eds.), 1983; Popov, 2001).

In the legal sphere, responsibility acquires the meaning of legal responsibility/liability and is interpreted as a form of social responsibility, the core of which is state enforcement of the sanctions provided by the law to the offenders (individuals and legal entities). Legal responsibility is a legal relationship between the state represented by the authorities and the offender, subject to legal sanctions with negative consequences for him/her (Shemshuchenko, 1998).

Therefore, liability is negative state response, based on the relevant prohibitive legal regulations, to the offenses committed in relation to a particular object (legal relations in a specific sphere of public life), which gives a motivated right to apply methods of state coercion.

In this case, the "key" to the occurrence of legal responsibility is the offense. According to the reference literature, to offend (to violate) means:

1) to do something contrary to the order, the law and so on;
2) to act, to do contrary to norms, customs, generally accepted rules, to deviate from something established, customary;
3) to recite anything wrongly, distort, misrepresent;
4) to interfere, interrupt any state, process or feeling;
5) to damage, destruct, destroy anything;
6) to start;
7) to cause, awaken something, set in motion, move something from the place;
8) to touch, take without permission something, and so on (Bilodid, 1976).

The offense has a wider meaning. For example, O. F. Skakun defines the offense as a public hazardous or harmfully unlawful (wrongful) culpable act (action or inaction) of a delictual person, which entails liability (Skakun, 2010). V. P. Marchuk characterizes the offense as an unlawful, culpable act, individually or socially harmful or dangerous, by a delictual subject (Marchuk, (Ed.), 2003). K. H. Volynka notes that the offense is a social and legal opposite of lawful conduct. Such behaviour violates the rights and interests of either individuals or society as a whole. In total, offenses constitute a danger to society, violate the rule of law, the existing legal order (Volynka, 2003; Podorozhnii, 2016).

In this regard, M.M. Marchenko argues that in any society, the offense is a social and legal antipode of lawful conduct. There are many different definitions of an offense. In general, they can be summarized by saying that the offense is a culpable, unlawful, socially harmful act of a legally capable person or persons, which entails legal liability (Bedniakova, 2006; Marchenko, 2004; Podorozhnii, 2016).

In accordance with this definition, an offense in the financial sphere is an unlawful, culpable act that violates the normal state of legal relationships arising from the fact of the management, distribution, coordination, use and other actions with financial resources. To be precise, this is the violation of certain regulatory provisions of the budget, tax, banking, currency, monetary and other types of legislation (Orliuk, 2010; Romaniuk, 2013).

It should be noted that in Ukraine, the specifics of legal regulation of liability for offenses in the financial sphere varies according to the sectoral distribution of such unlawful acts, which is based on the degree of social danger and the degree of punishability of the latter. In this context, offenses can be classified into administrative offenses in the financial sphere and criminal ones, that is, crimes.

Accordingly, legal responsibility for the actions of the first group is provided for in the Code of Ukraine on Administrative Offenses (hereinafter – the CAO), which shall protect the rights and freedoms of citizens, property, the constitutional system of Ukraine, the rights and legitimate interests of enterprises, institutions and organizations, established legal order, strengthen the rule of law, prevent offenses, educate citizens to consistently abide by the Constitution and laws of Ukraine, to respect the rights, honour and dignity of other citizens, the rules of civil coexistence and to honestly fulfil their duties, obligations to the society (Kodeks Ukrainy pro administratyvni pravoporushennia).

In particular, in Chapter 12 of Section II of the CAO, a number of legal regulations provide for liability for offenses in the financial sphere, such as:

- Article 162 of the CAO: the illegal purchase, sale, exchange, use of currency values as a means of payment or as collateral – shall entail a warning or imposing a fine of thirty to forty-four times

minimum non-taxable incomes with the confiscation of currency values;
- Article 1622 of the CAO: the illegal opening or use of foreign currency accounts of individuals, committed by a citizen of Ukraine residing permanently in its territory, as well as currency accounts of legal entities operating in Ukraine, committed by an official of the enterprise, institution or organization or on his/her behalf by another person, as well as the commission of the said actions by a citizen, an entrepreneur, – shall entail imposing a fine amounting to 500 to 1,000 times minimum non-taxable incomes;
- Article 1632 of the CAO: non-submission or untimely submission of payment orders by officials of enterprises, institutions, and organizations for the transfer of payable taxes and charges (mandatory payments) – shall entail imposing a fine on officials amounting to from five to ten times minimum non-taxable incomes;
- Article 1634 of the CAO: failure to deduct or failure to transfer to the budget the sum of the tax on personal income in the payment of income to a natural person, transfer of personal income tax at the expense of enterprises, institutions, and organizations (except when such transfer is permitted by law); failure to notify or late notification on the incomes of citizens to the state tax inspectorates on the agreed format – shall entail a warning or imposing a fine on officials of enterprises, institutions, and organizations, as well as on citizens, entrepreneurs, of two to three times minimum non-taxable incomes;
- Article 1638 of the CAO: deliberate actions of an official participant in the stock market bearing marks of manipulation on the stock market, established in accordance with the law on state regulation of the securities market, – shall entail imposing a fine of one hundred to five hundred times minimum non-taxable incomes;
- Article 16313 of the CAO: violation of laws of Ukraine and regulatory acts of the National Bank of Ukraine regarding the procedure for accepting cash for its further transfer by a non-bank financial institution which is licensed by the National Bank of Ukraine for transferring funds without opening accounts, a commercial bank agent – shall entail imposing a fine on officials of a non-bank financial institution licensed by the National Bank of Ukraine for transferring funds without opening accounts, a commercial bank agent of one hundred to two hundred times minimum non-taxable incomes;
- Article 16314 of the CAO: violation of the laws of Ukraine and regulatory acts of the National Bank of Ukraine regarding the procedure for the transactions with electronic money – shall entail imposing a fine on officials of a legal entity, a business entity, of one hundred to two hundred times minimum non-taxable incomes, and others (Kodeks Ukrainy pro administratyvni pravoporushennia).

Specific offenses in the financial sphere, namely in taxation, and the specificities of the occurrence of liability for their commission are regulated by the Articles of the Tax Code of Ukraine (hereinafter – the TCU). In addition, this specified legal regulation controls a special type of liability, that is, financial. In accordance with Article 11 of the TCU, financial liability for violating laws on taxation and other legislation is established and applied in compliance with the TCU and other laws. A financial liability is (financial) fines and/or penalties (Podatkovyi kodeks Ukrainy).

The specified type of liability is applied in case of committing offenses directly stipulated by the provisions of the TCU, such as:
- Article 117 of the TCU: non-submission, within the time limits and in cases provided for by the TCU, applications or documents for registration in the relevant controlling body, registration of changes in the location or other changes to their credentials, non-submission of corrected documents for registration or amendment, misrepresentation or incomplete submission, nonsubmission of information on persons responsible for accounting and/or drawing up tax reports in accordance with requirements of the TCU, – shall entail imposing a fine on self-employed persons up to 170 hryvnias, on legal entities, separate units of a legal entity or legal entity responsible for charging and paying taxes to the budget while performing the agreement on joint activity, up to 510 hryvnias;
- Article 118 of the TCU: non-submission of information on the opening or closing of accounts of taxpayers to the relevant supervisory authorities within the established term by banks or other financial institutions – shall entail a fine of 340 hryvnias for each case of non-submission or delay;
- Article 126 of the TCU: if the taxpayer does not pay the agreed amount of monetary obligation within the timeframe prescribed by law, such taxpayer is liable to a fine, etc. (Podatkovyi kodeks Ukrainy).

The next group of offenses is crimes, that is, socially dangerous culpable acts, which entail a criminal liability (Kryminalnyi kodeks Ukrainy). A key feature of criminal offenses is a significant degree of their public danger, in other words, the high level of harm inflicted on society in connection with their commission. This factor determines much more severe legal responsibility for this type of offense than for administrative ones.

The list of criminal acts in the financial sphere and certain aspects of liability for them are presented in the provisions of the Criminal Code of Ukraine (hereinafter – the CCU). Thus, a vivid example of a financial crime is the legalization of proceeds from crime, as provided for in Article 209 of the CCU, that is, the commission of a financial transaction or transaction involving monetary or other assets gained from the commission of a socially dangerous unlawful act preceding the legalization (laundering) of proceeds,

as well as the commission of actions aimed at concealing or disguising the illegal origin of such monetary or other assets or possession thereof, rights to such monetary or other assets, sources of their origin, location, movement, change in their form (conversion), as well as acquisition, possession or use of monetary or other assets gained from the commission of a socially dangerous unlawful act preceding the legalization (laundering) of proceeds. Liability for such an act shall be the restraint of liberty for a term of three to six years with the deprivation of the right to occupy certain positions or engage in certain activities for up to two years with forfeiture of property (Kryminalnyi kodeks Ukrainy).

Furthermore, Article 210 of the Criminal Code provides for liability for use of budget funds contrary to their target allocation, budget expenditures or granting of credits from the budget without established budget appropriations or exceeding approved expenditure limits; as well as Article 211 provides for liability for publication of legal regulations that reduce budget revenues or increase budget expenditures contrary to the law. Liability for the latter act shall be an imposition of a fine of hundred to four hundred times minimum non-taxable incomes or corrective labour for a term up to two years, restraint of liberty for a term up to five years with the deprivation of the right to occupy certain positions or engage in certain activities for up to three years (Kryminalnyi kodeks Ukrainy).

Therefore, the national model of legal regulation of liability for offenses in the financial sector is characterized by multi-levelness and varying degrees of severity of punishment. However, in foreign countries, such as the states of the European Union, this issue is considered from a somewhat different angle.

For example, the analysis of Germany's experience as one of the most financially progressive countries to date enables to conclude that the legal system of this country is characterized by the division of offenses in total. In particular, one of the types of punishable criminal acts is an administrative offense (administrative delinquency). However, the regulation of liability for them is not separated from the general provisions of criminal laws in comparison with Ukrainian experience.

For example, considering tax violations in the financial sphere, the Tax Code of Germany, promulgated on October 1, 2002 (the Fiscal Code of Germany) (Fiscal Code of Germany in the version promulgated on 1 October 2002), is the most important legislative act defining the liability for tax crimes and offenses. It is worth noting that the German Criminal Code practically does not contain rules on liability for tax crimes, with the exception of punishments for falsifying the signs of payment of customs duties and disclosure of tax secrecy (Romanko). In the second subparagraph of Section 369 of the Tax Code, based on the principle of "lex specialis derogat generali," in other words, the prevailing application has a special regulation of the Tax Code, the issue of possible competition of the criminal law of the Tax Code and the Criminal Code of the Federal Republic of Germany is allowed.

In order to analyse the specificities of the delineation of crimes and offenses in Germany's tax legislation, it is necessary to define the valid concepts and features of the crimes in the country. The Criminal Code of the Federal Republic of Germany of November 13, 1998, provides for a formal definition of a crime. In accordance with Section 11 of this law, 'unlawful act' means an act that fulfils all the elements of a criminal provision (Kryminalnyi kodeks FRN). Unlawfulness is understood as an act contradicting to the legal order in general, that is, an act must involve the statutory structure of a criminal act or violation of public order (Yermolova, Serebrenikova, 2008; Vaskevich).

Most legislative acts in Germany are focused on the regulation of financial offenses related to money laundering. In particular, the provisions of the Money Laundering Act of 1993 established the legal basis for the national system for counteracting this group of offenses. In addition, this legal regulation defined the list of participants of the system of financial monitoring, outlined the scope of obligations of the subjects of financial monitoring, and provided for sanctions for failure to meet requirements for client identification, collection, storage, and transmission of information to controlling bodies (Gesetz uber das Aufspuren von Gewinnen aus schweren Straftaten – Geldwachegesetz; Symovian, 2011).

Furthermore, the provisions of the German Criminal Code convey legal regulation of liability for "money laundering." The most severe punishment for the specified offense is the restraint of liberty for a term of up to 10 years. However, in some confluence of circumstances, the punishment shall not be at all. Sanctions are not imposed if a person voluntarily reports to the relevant authorities about the crime. In addition to sanctions for the legalization of criminal incomes, the Code has established a list of crimes predicate to laundering. In accordance with Section 12 of the German Criminal Code, all legal offenses punishable by imprisonment for one year and more may be "precedes" of the legalization. Among the less serious crimes in this list are the following violations: bribe-taking, bribery, extortion, trafficking in persons, pimping, theft, misappropriation, fraud, forgery of documents, gambling without appropriate permits and a number of other offenses (Symovian, 2011).

Next, the experience of France regarding the legal regulation of liability for offenses in the financial sector is worth analysing. It should be noted that the unlawful acts in this state are classified into three types, such as crimes, misdemeanours, and felonies (Symovian, 2011).

Furthermore, the French system of legal regulations, provisions regulating liability for offenses in the financial sphere is quite extensive. Accordingly, in France, articles

on criminal liability for tax evasion are contained in the Tax Code of 1950 (Articles 1727-1756). However, the Criminal Code of France of 1992 does not define elements of tax crimes (Kozochkin, 2001; Salkazanov, 2017).

The French Tax Code defines criminal offenses, as: non-submission of a declaration of income or a delay in its submission (Article 1728); provision of a knowingly false declaration (Article 1729); untimely payment of taxes (Articles 7130-7130 B); violation of the invoicing rules (Article 1737); failure to declare or pay tax in electronic form (Article 1738) and other misdemeanours. The breach of the above-mentioned regulations shall be punished by either fines or an increase in total tax payable (Salkazanov, 2017).

It should be noted that in France a number of specific legislative acts provide for liability for activities aimed at laundering the proceeds from committing drug-related crimes (Mezentseva, 2002; Romanko).

The institution of liability for financial offenses is quite active in Spain. For example, in the Criminal Code of this state, many articles impose sanctions on certain financial violations. In particular, in Spain, manipulative actions related to stock markets are severely punished. For example, if a person uses or provides information relevant for quoting any type of securities on an organized, official or recognized market and receives for oneself or a third party an economic benefit exceeding 65 million pesetas (or the corresponding amount in euros), or causes damage by the same amount, the punishment shall be imprisonment for a term of one to four years and a fine of three times profit that a person has obtained by assisted to obtain thereof. The subject of such an offense is a person who has become aware of information due to the performance of his professional activities, such as a professional participant in the stock market (Kryminalnyi kodeks Ispanii; Klochko, 2013).

In Spain, counterfeiting and tax evasion are also recognized as criminal offenses. Liability for the latter is stipulated in Article 305 of the Criminal Code of this state; according to it, the acts are punishable in case of damage to the State Treasury of the state, autonomy, local treasury via non-payment of taxes, deductions, receipts, or use of state funds derived from underpayment of taxes not received, deductions or amounts to be refunded, or unreasonably received money. In this case, there are some exceptions. For example, even if the total unpaid or illegally retained funds exceed 15 million pesetas (one of the main attributes of incrimination), an offender may be exempted from legal liability for the said actions in case of a regulation of his/her tax obligations, before being informed by the tax authorities about the start of the audit aimed at determining tax obligations, or in the absence of such an audit, before the public prosecutor's office (another public authority) submits a complaint or a statement against the said person or before the prosecutor's office or investigating judge carries out actions that will result in the formal beginning of the case (Kokorev, 2012).

Therefore, the analysis of many European countries reveals that mostly the legal responsibility for offenses in the financial sphere tends to impose criminal sanctions. In other words, financial offenses, regardless of the degree of their social danger, as well as the scope of punishment for their commission, are regulated by criminal legislation.

For example, similarly to Spain, Swedish law incriminates a professional stock market participant for an act of manipulating stock market prices. In this country, abuse, such as the dissemination of misleading information to influence the price of any property, including securities, is criminalized. Persons who occupy certain positions in the organizations involved in bidding on the stock market are among other subjects liable for such acts (Klochko, 2013). In the overwhelming majority, it is precisely criminal responsibility for other offenses in the financial sector in Sweden.

However, in some countries of Europe, financial offenses include such unlawful actions, analogues of which the legal system of our state does not contain. For example, the provisions of the Criminal Law of Greece establish the legal responsibility for insurance fraud. This act is distinguished as an offense in many criminal laws and in Russian pre-revolutionary legislation as well. The person is punishable, if in order to receive for him/herself or another person the insurance money for a movable or immovable asset, he/she creates the danger, against which the thing is insured, as well as a person, who similarly to obtain the sum insured, causes self-inflicted injury or enhances the consequences of bodily injury received as a result of an accident (Talan, 2007).

The Austrian legislation provides for legal liability for "careless bankruptcy" carried out by a debtor of several lenders who inadvertently causes his/her insolvency, or being aware of own insolvency involuntarily causes damage to all or part of his/her lenders by entering into a new debt, pays a debt, pledges property, untimely offers to appoint external management of the property, conclude an amicable agreement, open a competition, etc. (Talan, 2007).

The foreign experience in the legal regulation of liability for offenses in the financial sphere of the Republic of Latvia is worth analysing. It is of interest because of common features in the legal systems of our states due to previous membership in the Soviet Union of this country and Ukraine. For example, both in Latvia and in our country, a codified act establishes liability for administrative offenses, along with crimes, in particular in the financial sphere. The Code of the Republic of Latvia on Administrative Offenses recognizes as offenses following acts: non-compliance with procedures for registration of cash transactions, violation of consumer credit rules, tax evasion, false information in tax returns, etc., for which are liable to a fine (Kodeks Latvii pro administratyvni pravoporushennia).

A similar model of the legal regulation of liability for offenses in the financial sphere is currently in force in

some other European Union countries, in particular in Poland, Lithuania, the Czech Republic, and Slovakia (Banchuk, 2015).

3. Conclusions

The comparative analysis enabled to argue that the legal regulation of liability for financial offenses in the countries of the European Union and in Ukraine has a wide range of differences, such as:

- first, in contrast to the Ukrainian experience, offenses in the financial and other spheres in many EU countries are criminal acts that are subject to criminal laws, consequently, they entail criminal penalties;
- second, in many EU countries, the regulations providing liability for financial offenses are actually "scattered" among the provisions of a large number of legal regulations, often leading to legal conflicts;
- third, the legislation of the European Union states, in some cases, establishes legal responsibility for such offenses in the financial sphere, which in our country today are not recognized as criminally/administratively punishable, or, according to the degree of their social danger, entail imposing considerably fewer sanctions than in Europe.

Therefore, the analysis enabled to conclude that the mechanism of the legal regulation of liability for financial offenses in Ukraine is more improved than in European countries. Primarily, in our country, a strict codification of financial offenses exists. The differentiation of these offenses into administrative delinquents and criminal offenses is also positive because it enables to impose milder state sanctions on those acts that do not pose a significant social danger.

Nevertheless, the foreign experience of the legal regulation of liability for financial offenses should be analysed and applied to reveal outdated legal regulations and gaps in the national system of response options to financial offenses in order to overcome and correct these negative aspects.

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INSTITUTIONAL MODERNIZATION OF THE GLOBAL ECONOMY

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Abstract. *The aim of the research* is the improvement of the concept of the institutional structure of the economy in the conditions of corporatization on the basis of researching the international experience of development of stable basic institutions of the institutional environment. *Methodology.* The methodological basis of the study is the provisions of the institutional theory using the analysis methodology "institutional matrix". Historical-logical and dialectical methods were also used to study the contradictions in the processes of formation and development of the international institutional environment. *Results.* Institutional dynamics is the result of the functioning of a global international and specific national institutional environment, a formed subclass, ideological, economic, national-historical factors, essential values, ethnic characteristics and characteristics of the nation's mentality that are formed under the influence of long-term cultural influence and as a result of social interaction. Forced creation of new structures and private-property relations, supported by a massive import of market institutions in the absence of adequate national formal institutions and informal corporate culture, has led to non-fulfilment of contracts, a low business culture, opportunistic behaviour and informal contracts. In the process of introducing economic agents to institutional changes, invent quasi-market mechanisms: the predatory use of all types of resources, barter, income concealment, shadow schemes of tax evasion, offshore, "under-the-counter" wages, raiding, corruption at all levels of government, wide scale and versatility opportunism, violation of contracts, and the consumption of fixed assets. These manifestations intensified the structural deformations of the market and the transformational risks of the national economy. It is revealed that the development of the corporate economy on an innovative basis under the influence of globalization and monopolization, changes the individual institutions of the basic Y- and X- matrices. A new concept is proposed for constructing an institutional matrix using two principles of economic distribution: the market economy and the distribution economy; on the corporate and individual sectors of the economy. Two types of institutional matrices – corporate K-matrices and individual I-matrices – function in basic X- and Y-matrices, dividing each of the economies into two unequal parts (in terms of effectiveness, influence and significance of consequences). Corporate transformations turn individual complementary institutions of the market economy into the basic institutions of the corporate part of the Y-economy. Continuing institutional displacement requires finding the optimal balance between basic and complementary institutions in the corporate and unincorporated sectors of the Ukrainian economy, based on the use of specific institutional matrices, which will allow for institutional construction and minimize the social costs of the country's evolutionary development. The concept of the institutional-matrix structure of the economy has been improved taking into account the modern tendencies of corporatization. The economy is defined as a set of basic institutions of two types of matrices that are unequal in efficiency, influence and significance of consequences: the corporate K-matrix and the individual private ownership of the I-matrix. *Practical implications.* The distribution of the economy into the corporate and individual-private ownership sectors was the result of institutional transformations of certain complementary institutions of the market economy into basic ones, reveals the ways and sustainable mechanisms of institutionalization for the effective transformation of local institutional environments. The creation of an effective institutional environment will be ensured through the cultivation of institutional changes. *Value/originality.* The ongoing institutional displacement due to the intensification of the processes of monopolization and internationalization requires the search for an optimal balance of basic and complementary institutions in the corporate and unincorporated sectors of the Ukrainian economy, based on the use of specific institutional matrices, which will allow for institutional construction and minimize the social costs of the country's evolutionary development.

Key words: basic institute, complementary institution, institutional matrix, institutional environment.

JEL Classification: D02, D23, E02, E71

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1. Introduction

In the modern global economy, the renovation of the institutional environment is almost uncontrollable. Institutional biases continue, contrary to popular belief about the "specific, but formed", institutional environment. The vector of institutional transformations of the global and national economy is changing, the rethinking of which is yet to come.

In the Ukrainian economy, a number of factors have developed, actively opposing the processes of establishing an effective institutional environment. The unfavourable development of the institutional environment has resulted in inadequately formed labour, capital, land markets, the economy's orientation toward administrative and distributive relations, inefficiency and injustice of property relations, the information closeness of the capital market, high transaction costs, high uncertainty, and the reduced investment attractiveness of Ukrainian companies.

Features of institutional development are impossible to borrow the management mechanisms used in developed countries with historically created formal and informal institutions. Reforming of the borrowed Western institutions led to unpredictable and negative consequences.

Specific political, ideological, and economic factors in the development of the Ukrainian economy require new approaches to the institutionalization of the country. The task of finding new approaches is reducing the negative impact and negative consequences in the process of restructuring state and non-state Ukrainian institutions.

The fundamental feature of the Ukrainian institutional environment is the complexity or even the impossibility of establishing Western institutions since institutional changes have a clearly expressed national specificity. The import of institutions with subsequent legal fixing, which in most cases ensures the institutionalization of the economy, is not always effective, and sometimes impossible. There is a need for their cultivation and self-development in the national institutional environment.

2. Institutional matrices of the global economy

Stable basic institutions of the institutional environment form an "institutional matrix" (North, 1990). The institutional matrix is understood as a set of basic institutions that form a framework for retaining the main subsystems of the environment, ensuring reproduction and institutional dynamics. The basic institutions reflect the deep features of social structures that determine the number of possible trajectories for the further development of an institutional society. The nature of the basic dominant institutions determines the nature of the institutional development of the economic system. Basic economic institutions fix ways of the interaction of economic entities with the institutional environment for achieving the best result, that is, institutionalizes the forms of economic integration of society.

Recently, the concept that a variety of institutional complexes is based on one of two matrices has become widespread. The X-matrix is inherent in the states of the eastern part of the world – Russia, most countries in Asia and Latin America; B-matrix is typical for countries of Western Europe and the United States.

Institutional matrices in the economy. Social institutions exist independently of the cultural context, outside civilizational forms. Both matrices consist of three groups of basic institutions: economic, political, and ideological. Each institution of one matrix is opposed to the corresponding institution of the other matrix. The institutional matrix ensures the historical stability of institutions with respect to external and internal influences. In society, the principle of the dominance of the basic institutions of the matrix operates, which means the dominance of all three types of institutions of this matrix. The institutional matrix is characterized by integrity, that is, the dominance of one of the basic institutions of the matrix leads primacy and the other two types of institutions in society. At the same time, complementary institutions can operate with an alternative matrix, but they have an auxiliary character. The basic institutions establish restrictions on the operation of complementary institutions (Kirdina, 2017).

Basic institutes are historical invariants that retain their nature, provide a "blocking effect" for self-maintenance of the matrix structure (Donchenko, 2013). Complementary institutions ensure the stability and balance of the socio-economic system. Basic institutions are characterized by unmanageability and can lead society to chaos and crisis. Targeted actions of the state and government are directed to the development of complementary institutions for balancing a particular public sphere. The balanced ratio of basic and complementary institutions becomes the task of managing the institutional structure.

The economic structure of society is the result of a combination of production relations. Objective prerequisites for the creation of an institutional economic system are the peculiarities of material conditions and technologies, that is, the technological basis of institutional changes (North, 1990; Schumpeter, 1989; Kirdina, 2017). Analysis of institutional dynamics based on the introduction of new technologies reveals the dialectics of interaction between institutions and individuals. Institutes are formed in a specific institutional environment, respectively, institutions determine the purposeful direction of human activity.

Economic institutions that become the most effective means of organizing a national economy are formed in concrete material conditions, determined by them and do not exist outside these provisions. The basis for the development of the matrix becomes such characteristic of the material and technological environment of the

country as communal (or uncommunicated), that is, the use of the environment as a single indivisible system, parts of which can't be separated without the threat of disintegration of the environment. The communality of the material and technological environment provides for the continuity of the links between the elements. The properties of the communality (non-communality) of the environment do not change over time. The material and technological environment determines institutional technologies and enhances the character of the manifestations of basic institutions (Kirdina, 2017). The type of property – general or private – is associated with the amenities and costs of specification and protection of property rights.

Historically, the individual properties of the material medium of the Ukrainian economy determined its "communality" preventing the consolidation of private property rights: particularly the economic landscape, unfavourable climate, short-term field work, specific cultivation techniques, the use of slash-and-burn agriculture, low temperature, low crop yields and the consequent need to expand the acreage, permanent transfer to another land, the market unprofitable.

3. Institutional-matrix concept of modern economy

The use of the specifics of institutional matrices allows for the implementation of institutional construction and minimizing the social costs of the country's evolutionary development. However, historically, the mental orientation of institutional dynamics is conditioned and the recognition of the economy of the aggregate of basic and complementary institutions in accordance with the type of matrix does not abolish the processes of modernization of the institutional environment. The unsuccessful institutional transformations of Ukrainian society indicate, rather, the ill-considered, rather than the hopelessness of institutional transformations. The success of further reforms is related to the restoration of the effective functioning of the basic X-type institutions, the substantial modernization of their forms, the continuation of the search and the institutional development of effective complementary institutions.

However, let's believe that the division of the world into the X- and Y-type economies does not correspond to the current trends of globalization, corporatization, and monopolization of the world economy. The corporate economy is gradually changing the individual institutions of the basic B-matrix of countries with market economies of the West and the US and affects the vector of development of the X-matrix institutions. The introduction of innovations allows the corporation to overcome the inertia of the permanent institutions and change them.

Corporations are subjects of the market economy – have a hierarchical structure corresponding to the institution of coordination of the opposite matrix. A corporation is an aggregate of enterprises or industries operating on the basis of consolidation and forms a cooperative institution. The need to increase the capitalization of corporations led to a special institution of joint-stock (not common and private) property. It is almost universally recognized that the goal of the corporation (and some scientists consider the corporation itself to be an independent organism) is not the maximization of profits, but the opportunities for further growth.

Let's try to clarify the composition of the main institutions of modern economic systems, distributing the economy to the corporate and individual sectors, by a similar distribution to the planning and market economy proposed by Galbraith (1952).

Two types of institutional matrices – corporate K-matrices and individual I-matrices – function in basic X and Y matrices, dividing each of the economies into two unequal parts (in terms of effectiveness, influence and significance of consequences). Corporate transformations transform the complementary institutions of the market economy, such as coordination, cooperation, and collectivism, into the basic institutions of the corporate part of the B-economy (Figure 1).

By the method of purposeful observation, theoretical generalization and empirical analysis, let's have confirmed the existence of several institutions that form the basis of the institutional matrix of the corporate environment. This sample is a collection of individual institutions of the X- and Y-matrices, which become the basic institutions of the corporate economy. Each element of the institutional environment is a set of basic and complementary institutions that are specific to this level of the institutional environment.

The institutional environment is formed under the influence of political, ideological, economic, national-historical factors and becomes a reflection of the specifics of the development of these factors.

The existence of a relationship between the ownership structure and the processes of democratization of society and the economy confirms the analysis of ownership structure in developed countries. Political structure – authoritarian or democratic – forms the dominant nature of governance in corporations. In countries with a developed economy and democratic political structure, corporations with a large number of owners prevail, in countries with an authoritarian political order, corporations with a dominant owner (family or state) are formed.

A significant concentration of corporate assets in the hands of several owners can significantly influence the dynamics and results of political reforms and democratic reforms, preventing the formation of a new institutional environment. The inadequacy, inconsistency, and ineffectiveness of the institutional framework lead to disagreements between corporate and social goals, generates social conflicts (Radieva, 2018).

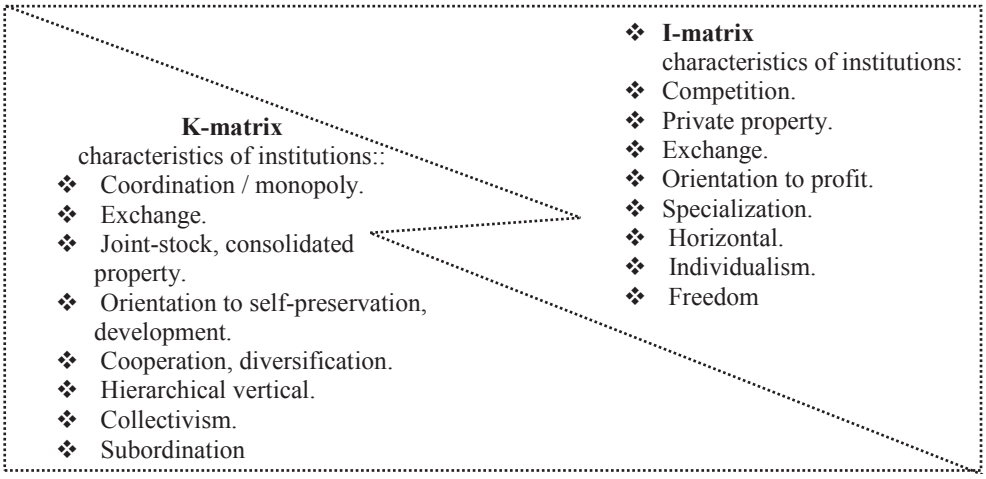

Figure 1. Institutional-matrix concept of modern economy

The scenario of the development of society depends on the idea – an informal institution, under the influence of which the development of a new society is taking place. The idea is transformed into the priority goals of society. This explains the features of the law of the unity of productive forces and production relations in the Ukrainian economy. The problem of the lag in the development of production relations from the development of productive forces as a result of the action of many factors, primarily technological, can be solved in two ways: first, the production relations develop to the level of productive forces; second, production forces are destroyed to the level of production relations. If the idea provides for the selection and development of institutions, tightening production relations to productive forces, society develops on its own, and more progressive society is born. The national Ukrainian idea was formed and continues to degenerate in a specific institutional environment, reflecting the pathologies of the democratization of society and affects the development of the economy's democratization.

The goals of the dominant groups in the structure of the share capital distribution are determined by the goals of the given society, formed by the political and economic elite. The structure of property distribution among certain groups of owners becomes a reflection of the idea, transformed into priority goals of society. Let's suppose that there is also an inverse relationship: the goals of society are determined by the goals of the dominant corporate owners, who are the political and economic elite of this society. The national idea is reborn as a result of the transformation of property relations. It is likely that the dominant owners of corporate rights, which are the political and economic elite of society, will determine the goals of this society. Imposing the goals of the dominant groups to the whole of society can be disastrous for the system, destroying it through political, social, and economic crises. The state's goal is introducing an institutional control and preventing attempts to subordinate the interests of society to the interests of economically closed groups with antisocial goals.

Obstacles to modern market reforms are conditioned by the specifics of society, which has caused the spread of the civilizational and socio-cultural paradigm of the development of society. Part of the failure of reform can be explained by the socio-cultural characteristics of the country. The sociocultural system is characterized by a combination of essential values and ethnic characteristics of social actors, formed under the influence of long-term cultural influence and as a result of human interaction. Directions of the transformation of society are connected with socio-cultural models, determined by the priority form of behaviour of subjects: societies with traditionalist values demonstrate the priority of prescribed norms and rules of conduct; societies with liberal values provide opportunities for client-oriented innovative actions. The way of traditionalist societies generates the stability of totalitarian structures, alienation of a person from public life, low innovative activity. The socio-cultural approach complements the analysis of institutional transformations by methods based on the revealed patterns of historical formation and stability of socio-value structures, the diversity of manifestations of the main socio-economic processes in different cultural and historical contexts, but not without some limitations.

The use of a sociocultural approach to the analysis of economic transformations makes it possible to reveal the ways and stable mechanisms of the institutionalization of a new social and economic system. Societal transformation (transformation of the macrolevel) determines the pace and ways of the transformation of local institutional environments.

Mentality can be presented as a stable institution, containing information on national economic, political, and ideological features. Mentality forms the core of culture, organizes the activities of individuals in accordance with generally accepted behaviour, values,

perceptions, attitudes, customs, national traditions, morality. National mentality and stereotypes of national behaviour themselves organize the activities of individuals. The Ukrainian mentality is formed under the influence of two opposite tendencies of Ukraine's development as the hetman's republic and part of the imperial state.

Let's describe some characteristic features of the national mentality, become essential characteristics of the Ukrainian institutional environment, and the factors of their formation. To them let's refer collectivism, motivation to achieve short-term goals, ineffective incentives for development, the Orthodox spiritual priority over the worldly.

Confessional factors influenced the formation of the national mentality and the formation of the economic system. Religion is the most important factor in shaping the structure of society's values. It is reflected in the values of religious salvation, the directions of spiritual integration of different peoples and ethnic groups, forms of the interrelation between the spiritual and social structure, the nature of secular culture, determines the level of the society's final orientations.

Development of forms of interaction, mutual assistance, and the formation of collectivist consciousness of the people contributed to the remoteness of the periphery from the centre and the features of economic activity. The lack of communication and transport for centuries enshrined the public's perception of the powerlessness of the central government.

4. Characteristics of the institutional environment of the Ukrainian economy

The specifics of the institutional environment determine the specifics of the economic system, which can have formal and informal components by the criterion of the vast majority of formal or informal institutions. The informal economy is the self-organization of economic agents, the principles of which are not institutionalized in formal rules.

Informal "rules of the game", not controlled by official institutions, extend to those relations between economic agents, excite households and the shadow economy. The development of the informal economy is wrong to associate only with the characteristics of the transitional period, but rather can be presented as a logical consequence of the peculiarities of the national mentality and ideology. The Ukrainian economy intuitively chose the path of development, the most consistent with the national mentality.

The factor of the informal economy development has become the traditionally negative attitude towards the bureaucracy, the perception of the state as an enemy, which can be deceived, robbed, broken promises. Even more, distanced people from the state violent state reforms. Institutional bias caused by Russian reformers – Peter I, P. Stolypin, V. Lenin, M. Gorbachev – created fundamentally new formal institutions, pulling out broad masses of the population from the usual stable institutional arrangements. Violent changes had an extremely painful impact on the existence of society.

Another feature of the national environment was the redistributive nature of the economy (Polanyi, 1957) with subsequent transformation into the distribution economy (Bessonova, 2017).

Self-organization of non-market economic relations of the distributing economy is based on the mechanisms of redistribution, coexisting with market institutions on the principles of "dominance-compensatory". The geographic area forms a market or non-market type of institutional core, ensures effective coordination of local environments: natural-climatic, material-technological, national-demographic, cultural-religious. The theory of integral institutionalism justifies the invariance of the nature of the institutional core of each type of economy, while the institutional forms are changing in accordance with the peculiarities of the institutional platform.

Quasi-market mechanism of the distribution economy has the external features of a market economy, but it retains latent distribution content, pulling firms into the struggle for state resources. Corporations use influence on power structures to control competition. The functioning of new corporate forms and modern quasi-market institutions ensure the formation of a system of "liberal distribution". The main element of such a system will be state corporations with a vertically integrated structure, the complexes will be replaced hierarchically by hierarchies (Bessonova, 2017).

The revolutionary nature of historical and modern institutional transformations, accompanied by a sharp change in formal institutions with simultaneous lagging behind informal ones, led to a normative institutional gap. The consequences of the backwardness of the development of informal institutions were the unbalanced development of the system, the inefficiency of the functioning of formal institutions, the destruction of traditional culture, and the rapid development of the shadow economy.

Transformations of the social system, a sharp change in the priority form of ownership, the creation of new organizational corporate structures led to deep socio-economic problems:

- loss of trust in the power and a sense of involvement in general political processes, a low level of trust between business and government has become a factor in the inefficiency of market reforms;
- the effectiveness of market reforms proved to be inadequate social and economic efficiency, which is not comparable with the paid high price in the form of deep destruction of production and technological potential, which is inadequate for the costs of other countries with economies in transition;
- the fall in the social standard of living of the population, unemployment, social insecurity became an excessively

high price paid by the bulk of the population for the transition to capitalism. According to official figures in 2006, the average monthly income of the population was 657.31 UAH, in 2016 – 3576.9 UAH, in 2017 – 3632.7 UAH. The average monthly nominal wage of hired workers (43.1% of total revenues) was: in 1995 – 73 UAH, in 2000 – 230 UAH, in 2002 – 376 UAH, in 2004 – 590 UAH, in 2005 – 806 UAH, in 2006 – 1041 UAH; in 2007 – 1351 UAH, in 2008 – 1806 UAH, in 2009 – 1906 UAH, in 2010 – 2176 UAH, for the period of 2013–2017 respectively – 3234 UAH, 3476 UAH, 4195 UAH, 5070 UAH, 7104 UAH. Let's note a significant differentiation of wages by types of economic activity and regions. The inflation index for the period 2013-2018(January-June) was as follows: 100.5%, 124.9%, 143.3%, 112.4%, 113.7%, 104.4% (Derzhavna, 2018);

The polarization of people according to the standard of living took place and continues: 5% – rich; 80% – on the brink of poverty. According to official statistics, the quintile coefficient of funds characterizing the differentiation of the living standard of the population in 2016 was 3.0 times. The population with average per capita equivalent of a total income per month is below the actual living wage, as a percentage of the total population; in 2014–2016 it was 16.7; 51.9; 51.1.

The country has lost its competitiveness due to the growth of technical backwardness, the lack of investment resources, and the outflow of capital, which greatly worsens the international position of the country. The structure of industrial production is changing radically, with the predominant share of which is the production of commodity sectors, mainly metallurgy. The state of the technical and technological base of the economy, which annual rates of output exceed the rates of input, poses another threat to the effective development of the national economy (Kolomiiets, Golovkova, 2017).

- A sharp decline in fundamental research, under-funding of applied research and a decrease in production of science-intensive products constitute a serious obstacle to a competitive national economy. Developing countries on an innovative basis spend on science needs not less than 2.5% of GDP. Two countries in the world – South Korea and Israel – spend on research and fertility more than 4% of GDP. According to Eurostat in 2003 and 2013, science spending in percentages of GDP is respectively: South Korea – 2.35%, 4.15%; EU – 3.14%, 3.4%; The United States – 2.55%, 2.77%; Japan – 1.8%, 2.03; China – 1.13%, 2.08%; Ukraine – 1.06%, 0.7%. In 2015, this indicator in Ukraine decreased to 0.62%;
- reducing the volume of public investment in the real sector of the economy adversely affects the prospects for economic development. The volume and structure of such investments play an important role in the economy, influence the implementation of structural reforms, support the rapid return on capital to the region, provide the necessary level of employment;
- orienting the business to maximum profits, ignoring corporations social goals and the lack of a state position (and therefore laws and mechanisms) on the social responsibility of business led to corruption and oil, grain, sugar, gas, construction crises;
- manipulation with budgetary paintings allows reporting on filling the budget in spite of the true reality – the rapid growth of Ukraine's debts. The national debt of the country was in 2007 71,3 billion UAH. As of December 31, 2017, the volume of state and state-guaranteed debt of Ukraine was 1 374 995,5 UAH, out of which 1 374 995,5 UAH – external debt;
- unreasonable taxation system carries out the fiscal function of filling the budget, does not ensure the implementation of the economic function (stimulation of production, cross-sectoral capital transfer);
- Ukraine accepts the position of the country of the "global periphery" in the global economy with the fulfilment of the function of providing conditions for highly developed countries;
- oligopolistic structure of markets with a high level of monopoly power;
- high level of shadowing and criminalization of many markets in which bureaucratic and criminal groups distribute commodity and financial flows through conspiracy, administrative or force pressure.

Economic reforms in Ukraine, primarily aimed at increasing the efficiency of the economy, led to the emergence of many formal institutions, both by origin and, in fact, became "formal". The practice of creating the Ukrainian formal institutions demonstrated their separation from the informal norms of the new economic order, which led to the emergence of sustainable, inefficient, really "formal" institutions. Reformed Ukrainian legislation introduced a large number of new and modified formal institutions in a short period of time. A complex system of regulation was created, the characteristics of which were: 1) the contradictory nature of certain norms to each other and informal norms; 2) the "height" of administrative barriers during the passage of bureaucratic procedures, irresistible without "obligatory" payments, do not come to the budget; 3) the selectivity of punishment, the criteria for choosing which are informal rules. This greatly complicates the orientation in formal rules for economic agents, allows the use and interpretation of contradictions in their own interests and creates the ground for the use of informal illegal rules. Unequal conditions of competition as a result of the functioning of the Ukrainian regulatory system are becoming a serious obstacle to the country's socio-economic development.

The Ukrainian economy demonstrates the opposite institutional deformation. Forced creation of new organizational structures and new private-property relations was not accompanied by the formation of adequate enforcement mechanisms for the execution of contracts. The absence of formal institutions for

contract enforcement, reinforced by the lack of informal business culture, causes a low culture of contracts, non-fulfilment of obligations.

The massive import of market institutions was dictated by the desire to accelerate Ukraine's global integration, deepened institutional discontinuities, strengthening the state and business inclination towards opportunism. The propensity of domestic business to opportunistic behaviour and informal contracts increases institutional structural market deformities and transformational risks of the national economy. The imbalance in the development of the institutional environment raises the danger of the possibility of shadow structuring and criminalization of economic life.

In the context of systemic transformations, society has two options for development: to reject new institutions or to slowly adapt to them. The contradiction between informal and formal rules is settled in two scenarios: according to the first, one of the rules survives; for others – it is determined the possibility of embedding a formal rule in a network of informal ones. Informal rules can change indirectly through the introduction of a new system of formal rules or spontaneously. Evolutionary development of the system by a small increase in informal rules ensures the spontaneous crystallization of a small part of informal constraints as conditions for maintaining the stability and development of complexly organized systems (Shastitko, 2002).

The transformation of the spontaneous behaviour of the subjects into the modelled one is connected with the gradual replacement of ineffective informal institutions by legitimate norms on the basis of synchronization of the elements of the institutional field (Tkach, Radieva, 2014). The process of adapting economic agents to unpleasant institutional changes is ensured by new quasi-market institutions, mostly informal ones. Quasi-market mechanisms include the predatory use of all types of resources, barter, income concealment, shadow schemes for tax evasion, offshore, "under-the-counter" wages, raiding, corruption at all levels of government, widespread and multifaceted opportunism, breach of contracts, "budget" opportunism and the like. Quasi-market relations create an institutional environment that ensures the selection and updating of basic institutions aimed at strengthening the deformations of the economy.

The failure to take into account the specifics of the functioning of the institutional environment in the formation of Ukrainian corporations has led to institutional discontinuities. In developed countries, the formation and consolidation of institutional forms of economic integration were carried out through their historical development in concrete material conditions.

The corporate governance model created by the results of compulsory corporatization of state-owned enterprises was focused on achieving short-term personal gain, rather than creating effective institutional integration forms. The consequence of institutional gaps has been the emergence of stable, ineffective formal institutions and informal quasi-market institutions that have ensured the adaptation of economic agents to unacceptable institutional shifts.

The consequence of a sustained institutional disruption was the imbalance in the development of the institutional system. The dynamics of the institutional environment demonstrates outstripping the development of the formal subsystem over the informal, which generates destabilizing processes, such as the development of the informal economy. Institutional changes led to an increase in transaction costs, in the administrative economy usually paid for by the state. As a result of the combined effect of these factors, a systemic crisis occurs, during which the efficiency of production is reduced.

5. Conclusions

Institutional dynamics is the result of the functioning of a specific national institutional environment, shaped under the influence of political, ideological, economic, national-historical factors, essential values, ethnic characteristics and characteristics of the nation's mentality, shaped by long-term cultural influence and as a result of social interaction.

The failure to take into account the specifics of the national institutional environment, such as collectivism, motivation to achieve short-term goals, ineffective development incentives, the Orthodox spiritual priority over the mundane, communal environment, traditionalist values led to institutional disruptions in the formation of Ukrainian companies. The unbalanced development of the formal and informal components of the institutional environment has generated the main two types of normative institutional discontinuities. The rapid development of the formal subsystem over the informal led to destructive processes in the economy, such as the informal nature of economic relations with the growth of transaction costs, the destruction of traditional culture, the indignation of the household, the shadow economy and criminality; and the redistributive nature of the economy with the transition to a distributing economy with quasi-market mechanisms. Forced creation of new corporate structures and private-property relations, supported by a massive import of market institutions in the absence of adequate national formal institutions and informal corporate culture, led to non-fulfilment of contracts, low business culture, opportunistic behaviour and informal contracts. Invented in the process of adaptation of economic agents to institutional changes of quasi-urban mechanisms, such as the predatory use of all types of resources, barter, concealment of income, shadow schemes of tax evasion, offshore, "under-the-counter" wages, raiding, corruption at all levels of government, and the multifacetedness of opportunism, the violation of contracts, the consumption of fixed

assets, strengthened the structural deformations of the market and the transformational risks of the national economy.

The development of the corporate economy on an innovative basis under the influence of globalization and monopolization changes the individual institutions of basic B-and X-matrices. A new concept of building an institutional matrix based on the distribution of the economy on the corporate and individual sectors is proposed. Two types of institutional matrices – corporate K-matrices and individual I-matrices – function in basic X and Y matrices, dividing each of the economies into two unequal parts (in terms of effectiveness, influence and significance of consequences). Corporate transformations make separate complementary institutions of the market economy into the basic institutions of the corporate part of the B-economy. Continuing institutional displacement requires finding the optimal balance between basic and complementary institutions in the corporate and unincorporated sectors of the Ukrainian economy, based on the use of specific institutional matrices, which will allow for institutional construction and minimize the social costs of the country's evolutionary development. The creation of an effective institutional environment will be ensured through the cultivation of institutional changes.

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INNOVATIVE CLUSTERS OF BUSINESS ACCELERATORS IN THE SPHERE OF SCIENCE AND TECHNOLOGY ENTREPRENEURSHIP

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Abstract. In a broad sense, the author's study was preconditioned by the problem of arranging the efficient system for positioning of the enterprises of venture entrepreneurship acceleration and incubation that today is quite a controversial aspect. At the same time, for today there are no studies and publications related to the identification of approaches to the positioning of clusters of the enterprise innovative activity acceleration that will make it possible to find the most efficient approaches to acceleration. Therefore, this paper is aimed at identifying the basic approaches in the positioning of startup acceleration and incubation institutes. *Methodology.* The study is based on the algorithms of cluster analysis. Having identified the key parameters of the analysed institutions, using the "Statistics7" program package, we have combined the input data to address the challenge of cluster analysis, consisting in classification breakdown, which meets the criterion of optimality. Proceeding from the research target, the rule "Single Linkage" was chosen as the key function. According to this rule, there are two objects, being the closest to each other. At the next step, the object, which has the maximum degree of similarity with one of the cluster objects, joins them. This method is also called the method of the closest neighbour as the distance between two clusters is defined as the distance between the closest two objects in different clusters. 1 - Pearson is chosen as a degree of distance as far as the given data cannot be presented as points in k-dimensional space. *Results.* The first part of this research contains a justification of the positioning indicators among the analysed startup accelerators, which were chosen for cluster analysis according to functioning models. In the second part, we consider the distinction of the functioning models of the obtained clusters and the features, typical for every enterprise, which has been involved in the study. Proceeding from the calculation of the configuration of distances of cluster formations using the method of k-means while approaching the process of startup acceleration and incubation, we have identified the aspect, which is of primary importance for the formation of resultative startup-accelerator. *Practical implications.* The obtained results make it possible to optimize the resources in the process of creation and positioning of startup accelerators and incubators. *Value/originality.* Based on the developed configuration of the distances of cluster formations using the method of κ-means in approached-to-startup acceleration and incubation process, we have found out the best practices in the area of venture business acceleration.

Key words: indicators, system parameters, positioning, capitalization, enterprise, acceleration, science and technology entrepreneurship, incubation.

JEL Classification: M13, L60

1. Introduction

Modern stage of global development is involved in globalization processes, characterized by enhancement of innovative activity in all spheres, as well as harnessing high technology and manufacturing innovative science-intensive products, which are the key factors of steady economic growth for the majority of the developed countries of the world. At the same time, it seems clear that the innovative economy cannot be built without an active development of enterprises, conducting research and development activities. Within the framework of forming the innovative structure, such institutions as a business incubator, technopark, technopolis, engineering school, high-tech centres, etc. have been developed and focused on creating favourable conditions for innovative activities, support and development of small-scale innovative entrepreneurship.

The above-mentioned forms of scientific and technological business are a system that integrates science, education, and production. It is an essential infrastructure

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element of national innovative systems, which promotes the formation of an innovative economy by the way of: development of science-intensive technologies and enterprises; selection and support of the promising scientific projects; commercialization of research findings and scientific and technological developments; rendering various services to small business entities, primarily, related to development of firms in the startup phase, etc. At the same time, today we have a relative dispersion of organization forms of such kind of activities. Thus, a justification of the axiomatics of the elements of venture entrepreneurship efficiency is of particular interest. A study of different aspects of entrepreneurship formation and development in terms of the innovative infrastructure is contained in the following papers: G. N. Ganamotse, M. Samuelsson, R. M. Abankwah, T. Anthony, T. Mphela (2017); D. Dellermann, N. Lipusch, P. Ebel, J. M. Leimeister (2017). A study of the innovative practice of business incubation, which allows the identification of management specifics in different countries, is contained in the following works: C. M. DaSilva, P. Gurtner (2017, January), J. Gonzalez-Uribe, M. Leatherbee (2017), S. Shane, N. Nicolaou (2017). At the same time, for today there are no studies and publications related to the identification of approaches to the positioning of clusters of the enterprise innovative activity acceleration that will make it possible to find the most efficient approaches to acceleration. Therefore, this study is aimed at the identification of the best practices of international science and technology business functioning based on a calculation of clusters.

2. Methodological approach

Having identified the key parameters of the analysed institutions, using the "Statistics7" program package, we have combined the input data to address the challenge of cluster analysis, consisting in classification breakdown, which meets the criterion of optimality. Proceeding from the research target, the rule "Single Linkage" was chosen as the key function. According to this rule, two objects, being the closest to each other, i.e. which have the maximum degree of similarity, are combined at the first step. At the next step the object, which has the maximum degree of similarity with one of the cluster objects, joins them. This method is also called the method of the closest neighbour as the distance between two clusters is defined as the distance between the closest two objects in different clusters. 1 - Pearson (1 minus coefficient of Pearson's correlation) was chosen as a degree of distance as far as the given data cannot be presented as points in k-dimensional space. When addressing a huge amount of problems in economics or sociology, the objects can be presented as points in k-dimensional space. In this case, it is expedient to use 1 – Pearson (1 minus coefficient of Pearson's correlation).

3. Conducting research and results

In order to conduct cluster analysis we have selected 19 institutions in the sphere of acceleration of the innovative activity and the following indicators, which are basic characteristics of their functioning: initial investment *thousand dollars); share in the project (%); total number of projects, registered in 2017; number of successful projects; amount of time to be spent on acceleration; time period of incubation program; capitalization (million dollars); number of sectoral areas under consideration.

Thus, the first indicator, which is of utmost importance while defining the effectiveness of building the accelerating institutions, is the amount of initial investment. Among the largest and the most popular institutions of similar format, which were selected for this study, their distribution is quite uneven. Therefore, this aspect is of utmost importance.

The next aspect of the positioning of the institution in the sphere of startup acceleration and incubation is represented by dynamics of the number of registered projects and the number of successful projects. In this aspect, differentiation among the analysed institution is also dispersive. The next aspect of the positioning of institutions in the sphere of startup acceleration and incubation is represented by capitalization. There was found no homogeneous situation in relation to this indicator among the analysed enterprises. The level of capitalization in the selection of the analysed enterprises is quite differentiated. Thus, since 2005 the total market capitalization of all companies of YC, which funded 1,430 companies and almost 3,500 founders, makes more than 5 billion dollars. SparkLabs has insignificant capitalization in comparison with the above-stated institution, which makes 1.2 billion. However, SparkLabs is quite a typical mechanism of positioning, which is reflected in the following elements: they invest up to 40,000 dollars in all startups in exchange for up to 6% of shares in every startup. This share is subject to negotiations depending on the amount and investment status of project launch; in the course of the acceleration program startups take part in our training sessions, where they have a chance to learn and communicate with the well-known Korean and international entrepreneurs. Besides, during office work startups can have feedback from general partners of SparkLabs; SparkLabs provides free-of-charge office premises in MARU180 centre for the startup in Korea and benefits for the amount over 900,000 Dollars, starting from cloud services, legal advisers and SendGrid. Besides, SparkLabs is the first Korean member of Global Accelerator Network (GAN), which means that our startups also can be provided with various benefits of GAN (Main statistics of worldwide Seed Accelerators (2017)). For today, Techstars Ventures have venture capital in the amount of 400 million dollars.

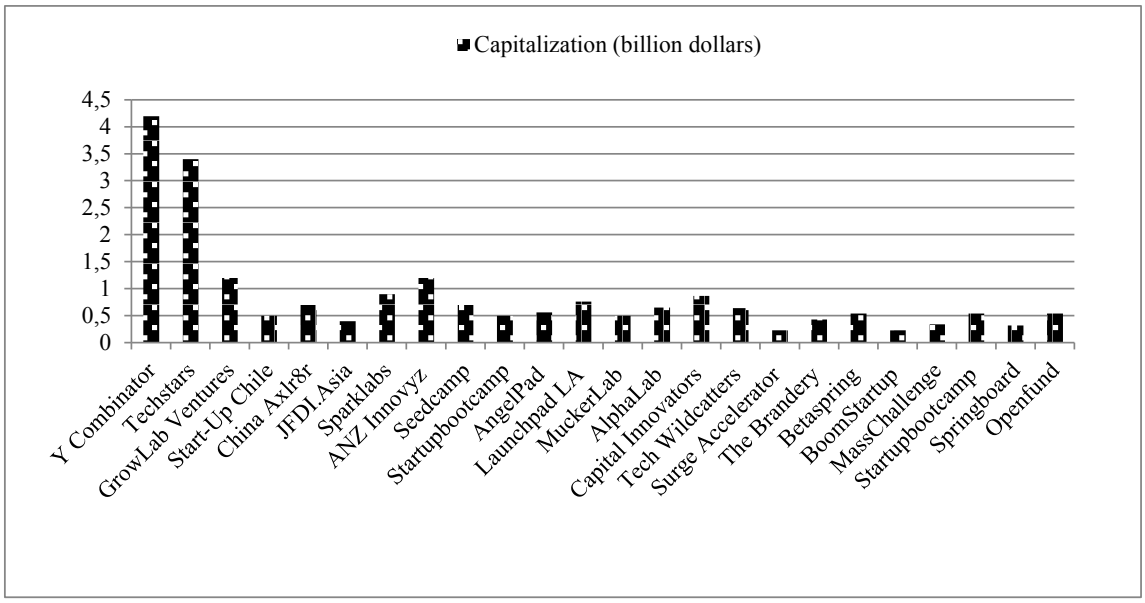

Figure 1. The market capitalization of the analysed enterprises specialized in startup acceleration and incubation in 2017

The Fund Techstars Ventures 2017 also has 265 million US dollars and now they invest the amount of 150 million US dollars from the third fund (according to their website). They invest in the companies-accelerators, established by graduates-accelerators. Figure 1 shows the total market capitalization of the analysed enterprises, specialized in startup acceleration and incubation in 2017. We can see quite significant differentiation among the analysed enterprises, specialized in startup acceleration and incubation in terms of market capitalization. Thus, Y Combinator and Techstars have the determinant amounts of capitalization that, in our opinion, is caused by the fact that they were the first institutions of that type. In general, as we can see from the author's analysis, startup accelerators of the USA prevail on the market for innovations and startups. For instance, among the analysed enterprises by the level of capitalization, the European and Asian enterprises have on average from 200 to 500 million dollars. However, startup accelerators from the USA have higher indicators on account of running certain enterprises after their launch. The last indicator within the framework of the author's analysis is differentiation by the number of sectoral areas under consideration. It should be noted that the emphasis in today's general trends of venture investment is laid on sectoral specialization.

Although, among the analysed institutions, we can see quite insignificant differentiation of project, which they admit (not exceeding 8 projects). At the same time, the basic today's trend is an enhancement of the role of the enterprises, specialized in startup incubation and acceleration. Figure 2 shows the general results of cluster analysis related to approaches in the positioning of certain institutes of startup acceleration and incubation in 2017. Using this method we have obtained a hierarchic structure of clusters with the above-stated characteristics, which allows identifying homogeneous formations – "clusters". As we can see in Figure 2, three cluster formations can be identified at the distance level from 2.5 to 5. 10 institutions, which undoubtedly occupy a significant segment on the global market, have grouped into cluster No. 1: Start-Up Chile, China Axelerator, FDI.Asia, Seedcamp, BoomStartup, GrowLab Ventures, Betaspring, AngelPad, The Brandery, Springboard.

The peculiar features of institutions of the first cluster, distinctive from the other cluster formations, are represented, first of all, by their geographic location in the developing countries. Modern characteristics of institutions of this cluster consist in the insufficient infrastructure, which is demonstrated by relatively low indicators of political and economic stability, Ease of Doing Business, costs on legal proceedings and high inflation processes. The above-listed aspects, jointly with a certain outflow of high skilled personnel, create a precedent when the indicator of total amount of registered projects (% from the number of applications) is much higher than in the second and third clusters. Thus, for instance, Start-Up Chile (SUP) is a typical representative of the first cluster Start-Up Chile (SUP). It is generally available startup accelerator, created by the Chilean government for high-capacity entrepreneurs to launch their startups and use Chile as a basis. As a rule, projects raise 90% of the total amount of costs on program, as well as by the way of reimbursing the costs or as advance payment. However, project startup should provide 10% of the rest of money. Chilean applicants may submit an application for additional 10 million of Chilean peso if they live abroad and obtained Master's Degree from a leading foreign university. Although, 10% of share in the project is the highest indicator among the analysed

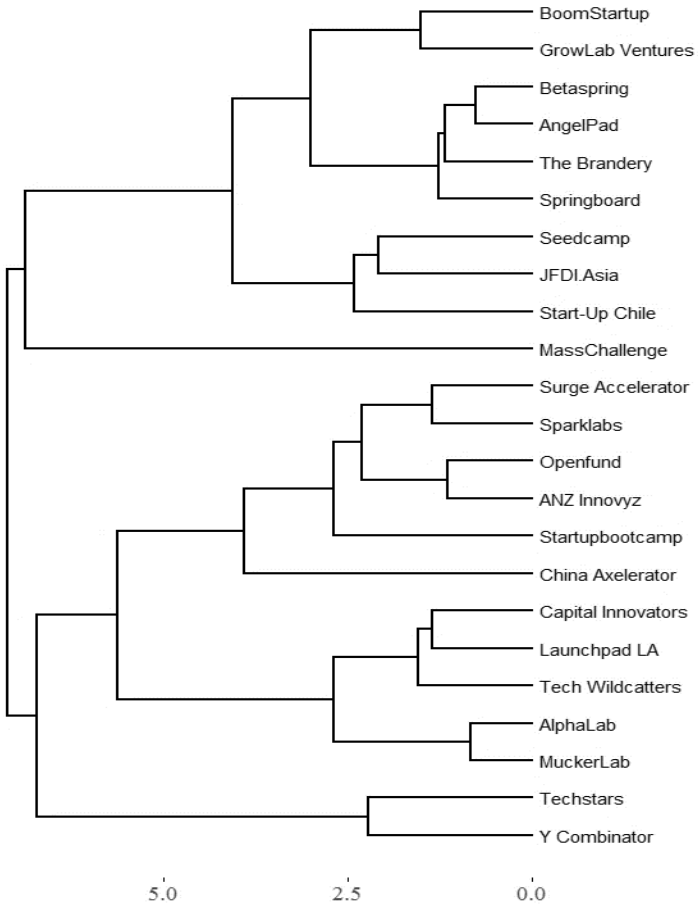

Figure 2. Basic characteristics of approaches in the positioning of certain international institutions of startup acceleration and incubation in 2017

clusters. Y Combinator and Techstars are two institutions, which today have the largest audience of investors and startups, which have involved or wish to get involved in venture investment, have grouped in the cluster No. 2. First of all, basic characteristics of the enterprises of the second cluster are represented by the amount of initial investment, which is much more than in the first and third clusters. Such a context is possible on account of considerable capitalization. These two institutions are the first formations of this type. This, Y Combinator has been founded in 2005. From 2005 to 2008 one program had been conducted in Cambridge, Massachusetts, and another one had been conducted in Mountain-View, California. In January, 2009 Y Combinator announced that Cambridge program would be closed and all further programs would be conducted in the Silicon Valley. In 2009 Sequoia Capital has carried out investment round in the amount of 2 million US dollars that were invested in Y Combinator. It will enable this company to invest in about 60 companies per year, in contrast to their previous investment in 40 companies per year (Main statistics of worldwide Seed Accelerators (2017). Techsters also has the characteristics, similar to Y Combinator. Sturtaps have an opportunity to submit an application to take part in the program of Techstars, and their viability will be evaluated by the Managing Director of the program that they apply for as well as by the Screening Committee, consisting of diverse members of Techstars network. In exchange to 6% of ordinary shares, every company, admitted by Techstars, receives 20,000 dollars; plus a convertible note in the amount of 100,000 dollars, access to Techstars network for a lifetime, more than one million dollars of benefits and three-month program of accelerators, which is conducted in three stages (Main statistics of worldwide Seed Accelerators (2017)).

Cluster No. 3 contains a group of three institutions, which, in contrast to the others, have higher specialization and also put emphasis on their positioning in less number of projects, which are admitted to acceleration program. The third cluster of the institution is characterized by a less preparatory period. Thus, the analysed enterprises of the first and second cluster have 90 days of acceleration program in average, although the enterprises of the third cluster conduct the acceleration program during 70 days (Main statistics of worldwide Seed Accelerators (2017)).

One of the typical representatives of the third cluster is AlphaLab – national startup accelerator, founded in 2008. As a chartered member of the Global Accelerator

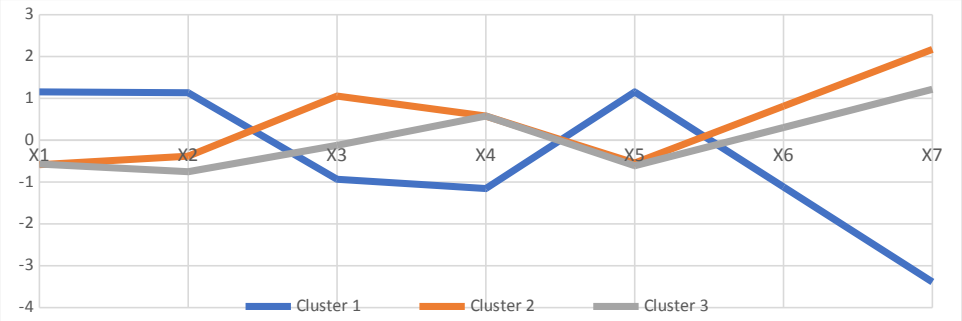

Figure 3. The configuration of the distances of cluster formations using the method of κ-means in approaches to startup acceleration and incubation process

Network (GAN) and one of the first ten accelerators of the entire world, AlphaLab has invested and collaborated with 113 companies, including 12 acquired companies. AlphaLab network consists of leading entrepreneurs, investors and mentors in the Pittsburg region and other countries. Success stories, related to startups in the highly-developed companies, include NoWait (acquired by Yelp), Jazz, Black Locus (acquired by Home Depot), Shoefitr (acquired by Amazon) and The Zebra. AlphaLab is also a part on the startup stage of a seed fund, which has invested over 50 million UD dollars in more than 160 companies, which jointly raised over 1.3 billion dollars. These companies include ModCloth, 4Moms, Civic Science, mobile technologies (acquired by Facebook Facebook) and ShowClix. In general, analysing structural elements of the enterprises of the third cluster, it should be noted that, according to their characteristics, these enterprises have a more selective approach to consideration and acceleration, as well as incubation of new projects. In order to compare the difference in approaches to the above-stated process, we have calculated a configuration of the distances of cluster formations using the method of κ-means (see Figure 3).

Figure 3 shows that, despite the fact that all clusters have quite different approaches to positioning, the total financial return in all the analysed clusters is quite similar.

4. Conclusion

Therefore, in the course of clusterization of the enterprises, specialized in the acceleration of scientific and technological entrepreneurship, we have justified the indicators, which demonstrate the key system parameters of the positioning of the largest ones by capitalization and other quantitative and qualitative indicators. First of all, it is quantitative and qualitative methods and forms of startup investment, which make it possible to optimize and enhance the effectiveness of the startup phase of acceleration or incubation. Secondly, it is the quantitative characteristics of share in the project (%), which enables us to determine the extent of the developers' readiness to alienate a certain part of the project. Thirdly, it is a total amount of the registered projects (% of the number of applications), which determines general principles and methods for selection and its impact on final results. Fourthly, it is a number of successful projects. This indicator clearly determines which projects have a capacity for effective exit and positioning. Fifthly, it is an amount of time, spent on acceleration, which enables us to understand the difference between the existing training programs and to single out effective elements. Sixthly, it is the level of capitalization, which makes it possible to justify the impact of the amount of capitalization on final incomes. Seventhly, it is a quantity of sectoral areas under consideration. This indicator is also highly relevant in terms of understanding of the existing trends in effectiveness of organizing the process of acceleration or incubation. Justification and calculation of the above-stated indicators enabled us to conduct cluster analysis, using the approaches to functioning of the enterprises, specialized in acceleration and incubation of venture businesses, as well as to develop the following classification: accelerators and incubators-followers, which have a distinctive feature of insufficient infrastructure, demonstrated by relatively low indicators of political and economic stability, Ease of Doing Business and, as a result, they are characterized by significant share in projects, undergoing acceleration or incubation, which is much higher than in other clusters; specific accelerators and incubators, which have larger specialization, and they also lay emphasis in their positioning on the higher level of readiness of the projects, which are admitted to the acceleration program along with a very slight period of acceleration.

Based on the developed configuration of the distances of cluster formations using the method of κ-means in approached-to-startup acceleration and incubation process, we have found out that, despite the fact that all clusters have quite different approaches to positioning, the total financial return in all of the analysed clusters is quite similar. Therefore, further analysis of the most effective accelerators and incubators is of considerable interest in terms of finding the best practices in the area of venture business acceleration.

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FOOD SECURITY OF THE BLACK SEA LITTORAL AND FEATURES OF ITS DEVELOPMENT

Iryna Sedikova[1], Ihor Savenko[2], Olena Boiko[3]

Abstract. A critical review of the definition of "food security" (FS) in the context of the views of economists was conducted. The main indicators were analysed that make it possible to determine the actual food security level of the country and the region. Justified the necessity of establishing food security as a priority goal of state policy. The food security of Ukraine was considered as a derivative of anthropogenic loading on the natural environment. *The aim of the article.* The purpose of this study is a critical review of scientific works on the problems of assessing the food security level, calculation of food security indicators with the established rational norms of food consumption in order to analyse the existing food security system of the Ukrainian Black Sea region and the peculiarities of its development. The subject of the study is theoretical bases, methodological approaches and practical recommendations for the definition of the existing system of indicators of food security and their thresholds for foreign values. *Methodology.* The methodological and theoretical foundations of the research are the scientific positions of economic theory, agro-food complex, planning and forecasting, scientific publications of domestic and foreign scientists in various spheres of economic science. In order to achieve the conceptual integrity of the work, general scientific and special methods were used: analysis and synthesis – for the comprehensive study of food safety processes; systematization – to identify the conditions, factors of providing food security; statistical – for generalization, systematization, and revealing of development tendencies of phenomena and processes connected with food safety of the region; graphic – for the visual display of the regularities of the change of food security indicators. *Results.* The conducted research indicates an improvement of the status of food safety indicators. The negative aspect is the ineffective state regulation of foreign trade, the conditions for the effective development of the food market are not created, and there are no favourable conditions for increasing the production volumes of the main agricultural products types. *Value/originality.* The methodology for determining the indicators for assessing the state of food security, which exist at present, requires new approaches and improvements. The conducted research allowed the authors to combine indicators into groups. The research has shown that for the sake of a comprehensive, complete analysis of the state of food security, it is necessary to take into account the indicators: socio-economic, which take into account such components as level and quality of life, solvency of the population, demographic factor; macroeconomic, such as gross aggregate product, gross domestic product, personal income, because the problem is systemic and related to the development of the country and its individual regions. From the author's point of view, from the strategic perspective, Ukraine should make the transition to the food safety indicators proposed by the Committee on World Food Security (CFS). This will allow an assessment of the real state of food security, which was formed in the regions and in the country as a whole, and urgently take appropriate action to improve it.

Key words: food security, indicators, consumption, food, region.

JEL Classification: F63, O11, O12

1. Introduction

In the conditions of a rapidly, alternating world, development brings us not only certain advantages but also new obstacles. Mankind has reached such an extent that it is impossible to ignore the threats that humanity faces, and the problem of guaranteeing safe development at this stage becomes the main one.

The solution of painful socio-economic problems is impossible without a high level of food security. It is important to consider it as a system that consists

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of separate subsystems: the world, national, regional, households, and the individual. The importance of this problem is determined by the fact that the human need for food belongs to the first group, and the degree of gratification is insufficient. Since food production and the environment are interrelated, farming using outdated, non-ecological methods will lead to dangerous processes that affect the quantity and quality of natural resources, which directly affect food production, and, as a consequence, food security (Adamisin, Pukala, Chovancova et. al., 2016).

Food security is a strategic national priority with the active participation of the state, a global problem both for the country as a whole and for individual regions. The international practice of satisfying food needs justifies its sufficient level for all citizens of the world in the amount of 80% or more of the food they consume, which must be carried out by their in-house agrarian sector, which ultimately raises the indicator of the quality of life of the population and, accordingly, its replication.

FAO notes that to provide humanity, the number of which is projected 9 billion people by 2050, (a 97% increase in population occurs in India, China, Pakistan, Nigeria, Bangladesh, Indonesia), agricultural production will need to increase by 70% (World Summit on Food Security, 2009). At the same time, measures should be taken which provide all people with physical, socio-economic access to a sufficient amount of safe food products, focusing on the security of full access for women and children.

In 2011, Ukraine adopted the law "On Food Security", which states that "food security is a socio-economic and environmental situation, in which all social and demographic groups of the population are consistently and guaranteedly provided with safe and high-quality food in the required quantity and assortment required and sufficient for the physical and social development of the individual, ensuring the health of the population of Ukraine" (Law of Ukraine "On Food Safety of Ukraine", 2011). At the World Food Summit, the following definition was given: "Food security means when a person constantly has physical, social, and economic access to sufficient, safe and healthy foods that provide their needs and food preferences for an active and healthy lifestyle" (World Summit on Food Security, 2009). The position of food security is achieved if sufficient food is provided for the entire population under normal conditions and the minimum necessary under emergency circumstances.

2. Analysis of recent research and publications

The scientific works of many economists are devoted to state determination question of food security and key indicators, so A. Berezin (2002) considers the features of agricultural production, its importance for the formation of food resource flows, proposals for the formation of a national food market V. Boyko (2011) consider the issues of the legal mechanism for regulating relations on food security, explore gaps in the current agricultural legislation, pay attention to the provisions on the legislative consolidation of relations on food security as a single legal institution, A. Goychuk (2004) examines the theoretical basis for the formation of the "food security" view, examines the growing food risk in the world, analyses current trends and aspects of food security, P. Sabluk (2009) reviews the concept of national food security, analyses political and innovative factors, social and mental-psychological factors of the degree of food security, M. Khorunzhiy (2003) analyses the causes and factors especially issues and patterns, the issue of food security as a component of international economic security explores the role in the economic system and its place in this structure, A. Ulianchenko (2016) substantiates the conceptual aspects of creating a stable food security system of Ukraine based on the sustainable formation of the agro-industrial complex, explores the formation of a balanced food market, A. Skidan (2006) justifies the need to establish food security as a strategic goal of regional agricultural policy, explores the conceptual foundations of the process of modelling and defining food safety indicators at the regional level, I. Irtischeva (2009) considers the activity, based on continuous innovation as the main condition for the socio-economic development, the importance of innovation and the challenges of innovation, focuses on innovation regional agro-food market and development of the region. But many problems to determine the degree of food safety remain important and require more detailed consideration and study.

The achievement of sustainable development of the region and ensuring its food security without a realistic assessment of the current situation is extremely difficult. The assessment process itself cannot ensure food security but, in fact, it should encourage regional authorities to plan and implement the necessary measures and help them to take preventive and informed decisions to achieve the aim.

3. Food security of Ukraine is a derivative of the anthropogenic load on the environment

The fundamental principles of the Food Security Concept of FAO include: "food security is not food self-sufficiency; a country must produce a sufficient amount of products for its own needs, if it has certain advantages; a country must be able to import the necessary volume and meet the needs of its citizens for it; governments must provide physical and economic access to safe food" (World Summit on Food Security, 2009). FAO has established a system of indicators to determine the level of food security in four areas: the availability of food-stuffs; food availability; food security stability; food consumption.

Approximately in the same directions, forecasting the level of food security in Ukraine is built. However, it should be noted that some of the specific indicators used by FAO are not included in the forecasting system in Ukraine. So, to characterize food security, FAO uses indicators such as the famine index (calculated as the arithmetic average of the proportion of the population that is undernourished, the proportion of children under 5 years of age with underweight and children who die before reaching the age of five) production in terms of the cost per capita, an indicator of import dependence of the country, the proportion of children with growth retardation, anemia, lack of vitamin A, iodine, and an increase in the proportion among the adult population, people who are overweight. Table 1 shows the place of Ukraine and the countries of the world, calculated on the Global Food Security Index.

Table 1
Place of Ukraine on the Global Food Security Index

Place	Country	Position State Global Food Security Index (points)
1	USA	89,3
2	Austria	88,4
3	Netherlands	87,6
4	Norway	85,4
5	Singapore	82,1
6	Germany	81,7
	France	80,9
	Great Britain	79,8
	...	...
23	Czech Republic	78,5
...	...	...
26	Poland	77,1
...		
29	Hungary	69,5
...		
47	Belarus	60,8
...		
52	Ukraine	56,4
...	...	...
57	Kazakhstan	53,3
...	...	...
62	Azerbaijan	50,3

Source: systematized by the authors (Data from the Food and Agriculture Organization of the United Nations, 2017)

The low amount of government allocations for scientific research in the field of agriculture and the level of gross domestic product per capita, which is twice lower than the world average, is the main determined problem. Own resources in sufficient quantity and quality, optimal volume of import operations, level, pace of development, stability of functioning of economic sectors of the country are the key to ensuring food security (Bublyk, Koval, Redkva, 2017). Economists have identified two central concepts of "food self-sufficiency" and "food independence", as well as different vectors and methods for achieving food security. To the first provision is attributed that in order to achieve the desired level it is necessary to provide for themselves fully with all groups of food products that ensure proper reproduction of the population. Note that the state ensures its independence from food imports, regardless of the natural conditions that exist, the efficiency of the division of labour within agricultural production.

The second view, which the authors share, notes the change in the main paradigm, which should occur due to balanced export-import operations in different commodity groups, can guarantee the public free access not only to their in-house but also to imported food. Globalization processes and the increasing influence of transnational companies are shown by countries that fully provide themselves with all the necessary foodstuffs. In general, the degree of their involvement in the exchange of goods is quite high. Today, this is a progressive phenomenon in international markets, since, with the right specialization of agricultural production, countries must significantly focus on the most highly efficient sectors and specialize there taking into account climatic-related and resource-related conditions. Within this framework, efficiently usage of resources is important, not the requirement of the country's compulsory self-sustainment with food to form a system. With rational international cooperation, "subsistence farming" is not further the key point at the country level, but the degree of consistency with the system of international division of labour on the most favourable conditions for each state. Only in this case, it is possible to ensure the final consumption of the population with the entire necessary "food basket" with the help of imports.

Scientists, economists acknowledge that the urgent situation of Ukraine's food security does not correspond to the level of a developed country. The main problems of this state are low incomes of the population (18.8 hryvnia, or 60 eurocents – this is the average salary per hour of work in Ukraine. According to this indicator, the state occupies the last line in Europe) and the rapid increase in food prices (according to the State Statistics Service, the greatest price increase occurred at eggs – by 53.8%, sugar (+ 10.5%), vegetables (+11, 2%) and fruits (+ 0.3%). It should be noted that the decline in agricultural production in the 90s of the twentieth century took a spontaneous character: the overall figure has decreased over the last decade by 38%, crop production – by 31%, and livestock – by 49%. But in Ukraine over the past few years, there have been promising developments in the agro-industrial complex of Ukraine, namely, the stable provision of the domestic market with food products, the country has entered the top three leaders in increasing the export potential of grain products.

4. Guidance of the economic development of the Ukrainian Black Sea littoral in conditions of food security

The economic activity of Odesa region is mainly focused on food production. Figure 1 shows the main activities in the processing industry according to 2017 statistics.

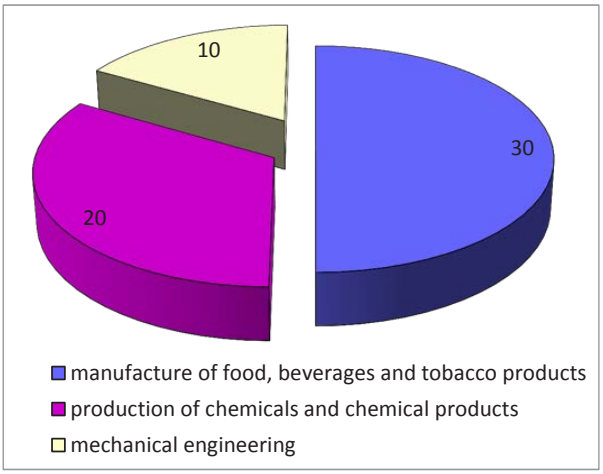

Figure 1. Main activities in the processing industry, 2017

Source: systematized by the authors (The Main Department of Statistics in Odesa Oblast, 2017)

In the "Strategy of economic and social development of Odesa region to the year 2020" there are the following: "... in the food industry, the basic enterprises are concentrated in the oil and fat, meat and dairy, canning and wine-making industries. The main part of the production output is provided by oil and fat enterprises (Delta Wilmar CIS LLC, CJSC ADM Ilyichevsk, Bioil Universal Ukraine LLC), canning (Aquafrost LLC, CJSC PO Odesa Cannery, JV Vitmark-Ukraine, Odesa Baby Food Cannery JSC), wine-making industries (CJSC "Odesa Brandy Factory", CJSC "Odesa Champagne Wine Factory", Odesavinprom CJSC, PTC Shabo LLC, Ovidiopolsky NPP Niva LLC) "(The Main Department of Statistics in Odesa Oblast, 2017). "In 2015, there were 6144 agricultural enterprises in the region, among them: 5153 farms, 502 household companies, 311 private enterprises, 112 cooperatives. Most of the farms are registered on the territory of Tatarbunary (684 units), Bolhrad (537 units) and Izmail (513 units) districts" (The Main Department of Statistics in Odesa Oblast, 2017).

The leading branches of crop production are grain farming, sunflower and rapeseed cultivation, vegetable growing, viticulture and horticulture. 55% of Ukrainian grapes grow in the region. Among the livestock industries, the most developed are cattle breeding, pig breeding, poultry farming, sheep breeding. The amount of agricultural products in all categories of farms in recent years has generally tended to increase" (The Main Department of Statistics in Odesa Oblast, 2017). According to the volume of agricultural production, in particular, grain crops, the leading ones are Tarutyne, Bilhorod-Dnistrovskyi, Artsyz, Sarata, Bolhrad and Tatarbunary districts. The leaders in the cultivation of vegetables, fruits and berries are Biliaivka district, the most part of all grapes is grown in Bilhorod-Dnistrovskyi, Bolhrad, Tarutyne districts of Odesa region.

The overwhelming volume of livestock products in Odesa region is produced by local households. The largest volumes of livestock and poultry sold for slaughter were distinguished by Lymanskyi, Artsyz and Berezivka districts; Milk – by Berezivka, Liubashivka, Shyriaieve; eggs – by Kiliia, Bilhorod-Dnistrovskyi, Izmail districts of Odesa region. "According to the area of farmland, which is in the use of agricultural enterprises and population, Odesa region ranks first among other regions. The area under crops increased from 1,772.8 thousand hectares in 2010 to 1,850.0 thousand hectares nowadays. At the same time, the share of acreage under grain and leguminous crops varies at the level of 65%, and under sunflower – 20%" (*The Main Department of Statistics in Odesa Oblast, 2017*).

In the Passport of Odesa region, 2017 (the Passport of the Odesa region 2017), noted that at the end of 2017 in the Odesa region grain crops were collected on an area of 1,188.1 thousand hectares. The gross grain harvest amounts to 4,239.6 thousand tons (96.3% of the 2016 level), the yield is 35.7 c/ha, including wheat collected in 2278.8 thousand tons (107.9%), barley 1266.3 thousand tons (84.6%), corn 495.0 thousand tons (81.2%). Sunflower harvested on an area of 452.9 thousand hectares. The gross yield is 901.8 thousand tons (89.8% by the year 2016 level), the yield is 19.9 dt/ha. Rape is collected on an area of 110.0 thousand hectares. The gross yield is 258.7 thousand tons (340.8%), the yield is 23.5 c/ha. Vegetables are collected in an area of 22.1 thousand hectares. The gross yield is 287.7 thousand tons (82.5%), the yield is 130.4 c/ha. Potatoes are harvested in an area of 35.3 thousand hectares. The gross yield is 393.0 thousand tons (72.6%), the yield is 111.5 c/ha (Passport of the Odesa region, 2017).

The formation of strategic directions of achievement a high level of food security of the country has systemically integrated nature, which depends on the macro-, microeconomic indicators of the development of the state and regions. In the research that is being studied, the basic document is the Law of Ukraine "On Food Security". The Law of Ukraine "On Food Security" (Law of Ukraine "On Food Safety of Ukraine", 2011) noted that "indicators of food security are a characteristic of the level and pattern of consumption of basic foodstuffs by the population, their economic affordability, the capacity of the domestic food market, sufficiency of state food resources and food independence" (Law of Ukraine "On Food Safety of Ukraine", 2011). In our opinion, indicators are vectors of development that indicate the border of adverse impacts, signalling to market actors about possible negative segments, a decrease in the global level of food security.

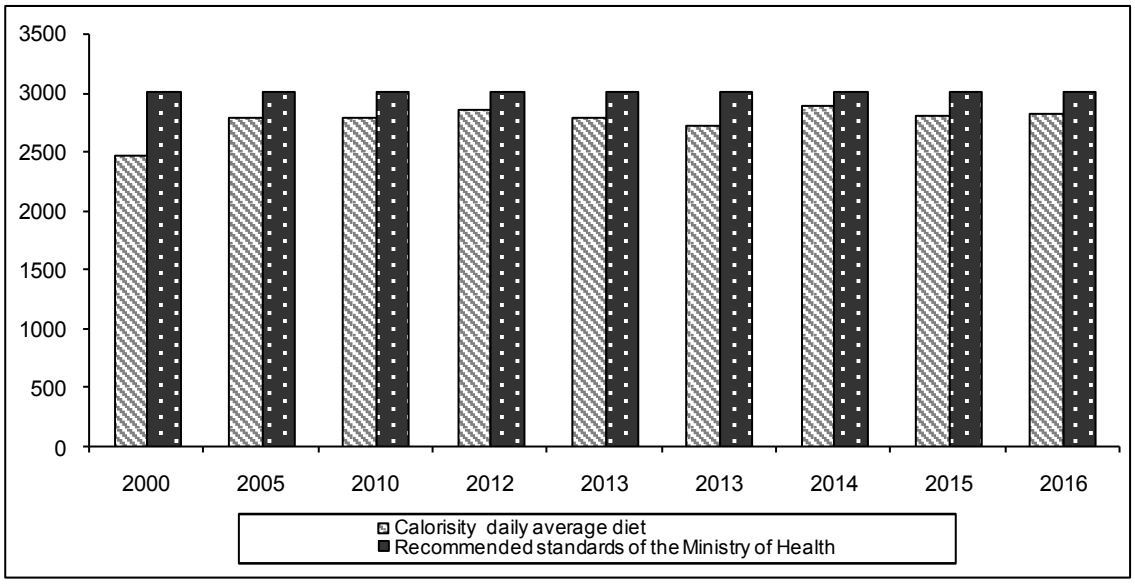

Figure 2. Dynamics of average daily consumption of food in Odesa region per person

Source: systematized by the authors (State Service of Statistics of Ukraine, 2016)

4.1. Daily energy value of the human dietary

The analysis revealed the following: in 2016, the average daily energy value of consumed products by residents of Odesa region was 2283 kcal, which is 10 percent lower than the recommended norm (3000 kcal), which is 1.7 percent less than it was in 2015. The dynamics of the average daily energy value of consumed products by residents of Odesa region per person (State Statistics of Ukraine, 2016) is shown in Figure 2. These statistics show that fruits, vegetables, berries, cereals, herbs, nuts, juices make up the bulk of calorie intake and only 30% of the average daily ration is replenished by canned meat, meat-vegetable and fish, cheese, milk and dairy products, children's products food, margarine, fats, sausages, meat concentrates, it is twice lower than the accepted rate of consumption (56%).

Further, in Table 2, an indicator for ensuring the human dietary of the main types of products is calculated. It is acceptable when the ratio of the real and the established norm is 1. The analysis allows to state that the balance of consumption of basic foodstuffs in the Odesa region during 2000–2016, in all groups, is lower than the standards established by the Ministry of Health of Ukraine. The unsatisfactory situation has developed with the consumption of such products as meat, meat products, milk, dairy products, fruits, berries and grapes.

It should be emphasized that the actual consumption rate of "bread products" is more than rational, which is the result of unbalanced nutrition of the population, which tries to replenish personal energy needs through cheaper food products. This is a consequence of insufficient agricultural production, low solvency of the population of certain social groups.

The sufficiency of grain stocks in public resources. The Law of Ukraine "On State Support of Agriculture of Ukraine" stipulates that "...the state intervention fund must be formed in the amount of not less than 20 percent of domestic consumption" (*Article 9*).

In 2016–2017 In Ukraine, a record grain harvest of 66 million tons was harvested, which is twice as more than the domestic needs, in particular, the production of wheat is 26 million tons against 9,400,000 tons (2.77 times more than needs). The optimal quantity of grain reserves in the state reserve is calculated by the ratio of the volumes of food grains in the state reserve and the volumes of domestic consumption of bread and bread products converted in grain:

$$OPT_z = \frac{Z_{rr}}{CVC} * 100\% \quad (1)$$

where *OPTz* is the optimal level of food grains in the reserve fund; *Zrr* – the amount of grain in reserve; *CVC* – the volume of domestic consumption of bread and bread products converted in grain;

The critical level of the indicator is its 17% level. The annual demand of Odesa region for food grains is 72 thousand tons, including 38.3 thousand tons for the rural population, for baking enterprises of all forms of ownership corresponds to the limit (60 days) and is 6.6 thousand tons.

The economic affordability of food is the share of all food expenses in the total result of household expenditures (the critical level of this indicator is 60%). Total household spending in Odesa region amounted to 8852.2 UAH/month (Main Department of Statistics in Odesa region, 2017).

Table 2
Calculation of the indicator of the adequacy of food consumption of the population in Odesa region for 2000-2016

Name product	Recommended rate of MoH, kg	2010		2012		2013		2014		2015		2016	
		actual rate	sufficiency indicator	actual rate	sufficiency indicator	actual rate	sufficiency indicator	actual rate	sufficiency indicator	actual rate	sufficiency indicator	actual rate	sufficiency indicator
Meat and meat products	83	45,0	0,535	46,77	0,555	48,11	0,575	48,90	0,587	45,99	0,548	47,19	0,565
Milk and dairy products	380	184,59	0,487	185,35	0,487	192	0,505	205,49	0,537	194,5	0,509	188	0,487
Eggs	290	282	0,968	290	0,99	292	1,025	293	1,026	279	0,957	272	0,939
Bread products	101	112	1,122	113,11	1,115	108,3	1,057	108,3	1,058	103,5	1,028	103,5	1,029
Potatoes	124	101,5	0,814	102,9	0,828	101,9	0,819	115,1	0,925	109	0,878	111	0,901
Vegetables and gourds food crops	161	147,6	0,915	171,3	1,058	166,8	1,035	173	1,067	169,5	1,047	161,1	0,99
Fruits, berries and grapes	90	58,2	0,647	60,1	0,669	59,9	0,668	58	0,635	60,2	0,669	55	0,609
Fish and fish products	20	18,6	0,928	17,7	0,888	17,7	0,888	15,7	0,785	12	0,589	13	0,658
Sugar	38	36,1	0,948	37,2	0,978	37,2	0,977	37,2	0,976	37,1	0,978	34,7	0,908
Oil	13	15,4	1,178	14,2	1,085	14,1	1,075	14,1	1,078	14,1	1,078	13,2	1,017
Calorie of an average daily dietary	3000	2839	0,947	2872	0,958	2843	0,948	2888	0,958	2801	0,924	2723	0,908

Source: calculated by the authors (The Main Department of Statistics in Odesa Oblast, 2016)

Table 3
The balance of production and usage of grain, thousand tons

	The balance of grain and leguminous crops in agricultural enterprises in 2016										The balance of grain processing products in agricultural enterprises in 2016				
	Receipt			Usage							Receipt		Usage		
	stocks at the beginning of the year	produced	purchased and other income	for sowing	to feed	for processing		implemented in all directions	storage loss	reserves by the end of year	stocks at the beginning of the year	processing and other income	to feed	implemented in all directions	reserves by the end of year
						for flour, cereals, etc.	for compound feedstuff								
Ukraine	15288,7	52022,2	6849,9	1705,7	1203,5	1029,3	2352,6	47348,1	305,3	20216,3	72,6	849,5	618,1	210,3	93,7
Odesa region	651,9	3319,8	54,1	164,5	73,4	38,3	32,8	2856,2	11,0	849,6	2,8	38,5	21,6	12,4	7,3

Source: calculated by the authors (State Service of Statistics of Ukraine, 2017)

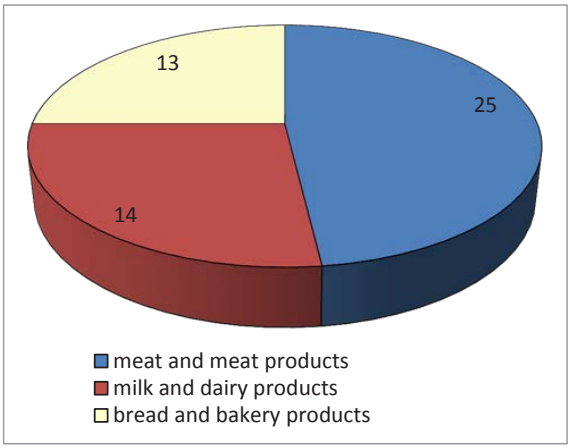

Figure 3. The General Structure of the Cost of Food

Source: systematized by the authors (State Service of Statistics of Ukraine, 2017)

Household spending on food is 4892.7 UAH/month. The indicator, which is analysed in 2017, was 57 percent. Figure 3 shows the overall structure of food expenditure.

4.2. The distribution of the cost of food by social groups

In 2017, about twenty percent of households with incomes above the average spent for food 2904.39 UAH/month, and twenty percent with lower incomes – 1758.6 UAH. The coefficient, which is being investigated, amounted to 1.678 in 2017 and 1.676 in 2016, respectively. The World Health Organization notes that an able-bodied person should increase consumption of dairy products – by 8%, meat (mainly chicken) – by 20%, fruit – by 61.9%, consumption of confectionery products should be reduced to 1 kg per month.

4.3. The capacity of the domestic market for certain products

Despite the decrease in population, the capacity of the domestic market for all food groups increased. The research proved that there is an increase in demand for those food groups whose consumption lags behind the optimal norms (meat, dairy, and fish products).

4.4. Food independence for certain products

Providing consumers with a sufficient amount of the main food groups, taking into account their level of solvency, is carried out by producing domestic products. In 2017, imports from European countries amounted $ 413,800,000 (28.2% of the total imports of goods in the region), from other countries $105,210,000, or 71.8% (in 2016 – $350.7 million or 28.1% and $896.3 million or 71.9%, respectively).

Table 4

Commodity structure of import receipts of some foodstuff groups, 2017

Product group	Import volume, mln. $	Increase, %
Plants products	147,6	14,0
Fats and oils of animal/vegetable origin	126,9	10,7
Fish and fish products	295,7	7
Vegetable oil of all kinds	74,36	22

Source: systematized by the authors (State Service of Statistics of Ukraine, 2017)

The share of fish and fish products imports in the dietary consumption of the population is 73%. According to the "vegetable oil of all kinds" position, a large share of imports is associated with the import of tropical oils (palm oil 90%), which are not typical for production in Ukraine but are used for the production of food and non-food items. Domestic demand for sunflower oil Ukraine is fully provided by its own production. The largest share of imports in 2017, which is more than 70%, of fruits and berries, were such types of fruits: citrus fruits, bananas, dates, pineapples, mangoes, avocados, and so on.

4.5. Density of highways

The ease and speed of foodstuff delivery to the population depend on the concentration of roads per unit of area. 27 km of roads per 100 km^2 S (square) were accounted in Ukraine in 2016, this figure is one of the lowest in Europe.

Odesa region is located on the crossing of five international transport corridors: the seventh and ninth Cretan corridors, the transport corridor (Europe-Caucasus-Asia), the "The Baltic Sea – The Black Sea" corridors and The Black Sea Transport Ring. 41,600,000 tons of cargo were transported by 2017, which is 5.4% more than in 2016. In 2017, the Odesa Commercial Sea Port exceeded 24,136.6 thousand tons of cargo (95.6% of the 2016 result), including: exports – 17,494 thousand tons (- 8%), imports – 4346 (+ 19%), transit – 2176 thousand tons (-15%). Transshipment of dry cargo – 9516 thousand tons (99%), liquid bulk – 2325 thousand tons (899%), packaged ones – 12,295.38 thousand tons (94.5%). In the structure of cargoes, the main share is: grain – 7650 thousand tons (93.3% in comparison with 2016), containers – 6969 thousand tons (104%), ferrous metals – 5170 thousand tons.

5. Conclusions

The research indicates an improvement in the status of food security indicators. The negative point is the ineffective state regulation of external trade, the conditions for the effective development of the foodstuff market are not created, there are no favourable conditions for increasing the volume of manufacturing of the main types of agricultural products. A necessary condition is to minimize the deviations of actual consumption volumes towards the normative, increasing the level of effective demand by the population. There are two vectors for achieving food security in Ukraine: 1) ensuring the supply of food in amounts that guarantee healthy and nourishing food of the population; 2) as well as the support and protection by the state of domestic producers. It can be stated that the optimal approach to understanding the problems of food security should be based not only on creating bases for own food production in the country, but also on the formation of such a balance of domestic and imported food resources, which will ensure a constant level of social stability in society.

Methods for determining indicators for assessing the state of food security, which are currently used, require new approaches and improvements. The research allowed the authors to calculate individual indicators of food security in selected regions. The research proved that for a comprehensive, complete analysis of the situation, such indicators should be taken into account as : socio-economic factors that take into account such components as the level and quality of life, the solvency of the population, the demographic factor; macroeconomic, such as gross aggregate product, gross domestic product, personal income, because the problem is systemic in nature and is associated with the development, food and economic security of the country, and indeed its individual regions.

From the authors' point of view, from a strategic perspective, it is advisable for Ukraine to make a transition to the system of food security indicators proposed by the Committee on Food Security (CFS). This will allow carrying out an evaluation of the real situation of food security in the country and its regions and urgently taking appropriate actions to improve it.

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USING THE WORLD EXPERIENCE OF DEVELOPED COUNTRIES IN THE FORMATION OF DIRECTIONS FOR IMPROVING THE PROCESS OF DEVELOPMENT AND IMPLEMENTATION OF GOVERNMENT TARGETED PROGRAMS FOR NATURAL ENVIRONMENTAL PROTECTION

Oksana Senyshyn[1], Marta Olikhovska[2]

Abstract. The scientific article deals with the directions of improvement of the process of development and implementation of state targeted programs for protecting the natural environment in Ukraine. In particular, state targeted programs of environmental protection in Ukraine are the subject of this research. *Methodology.* A set of scientific research methods is used to realize the goals and tasks defined in the scientific article. Namely, the comparative method was used to compare the foreign experience of developed countries in the field of state programming of environmental protection and its adaptation to the conditions of Ukraine; to compare indicators that determine the level of development and implementation of state target programs of environmental protection in Ukraine; economic and statistical method used to investigate the state and trends of the development of the state programming system in Ukraine, to identify the main problems and obstacles related to its functioning; graphic interpretation method made it possible to visualize the principal scheme of management of domestic state target programs of environmental protection; the method of theoretical analysis, systemic and analytical methods, method of generalization, methods of grouping contributed to the identification of the main directions of improvement of the processes of development and implementation of state targeted programs for the protection of the natural environment in Ukraine. *Information and reference base* of scientific research consists of laws and other legal regulations of Ukraine on environmental protection issues, international documents, analytical and statistical materials of the State Statistics Service of Ukraine, reports on the implementation of State target programs for 2010–2016, scientific works of domestic scientists, periodicals, results of the authors' personal observations. *Practical implementation.* The authors have summarized their research results on the possibility of using the schematic model of managing the state targeted environmental protection program in Ukraine for the aspects related to creation and functioning of the Coordination Council, led by the program manager. The above mentioned Coordination Council is an advisory (collegial) body that operates on a voluntary basis. It is also substantiated that for Ukraine worthy of attention is the experience of the European Union countries, which radically changed the system of state management of environmental protection, and revised the balance of competence of different levels of government, through systematic improvement and alignment of the mechanisms of environmental management with international legal, normative-methodical and institutional basis of ecological management and ecological safety. *The scientific value of research results.* In the form of directions for improving the process of development and implementation of state targeted programs for the protection of the natural environment in Ukraine, a set of key recommendations has been proposed for improving the efficiency of functioning of the system of domestic state programming for natural environment protection.

Key words: state target program of environmental protection, programming, efficiency, state ecological policy, mechanism of state target ecological program management.

JEL Classification: Q56, O13, H53

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1. Introduction

The current practice of state programming of environmental activities shows a low efficiency of state regulation in this area. This is primarily due to the imperfection of the economic, legal, political, social mechanisms of environmental activity, the low level of its implementation in the practice of management, the lack of scientific research in this area, neglecting domestic and foreign best practices.

The main feature of the effective implementation of the state targeted programs (STPs) of environmental protection in Ukraine is their even and proportional financing throughout the implementation period. It requires involving both, budgetary and extrabudgetary funds, under constant and comprehensive control at all stages.

The issues related to using the mechanism of state target programs and assessing their effectiveness in the economy of Ukraine were investigated in a number of to scientific researches, conducted namely by such economists as V. M. Heiets (2008), L. S. Hryniv (2010), B. M. Danylyshyna (2008), O. S. Zarzhytskyi (2012), L. H. Melnyk (2003), T. O. Moshchytska (2010), O. V. Faychuk (2015), L. M. Yakushenko (2015), L. D. Yatsenko (2015), and others. Many publications of foreign scholars have been devoted to the study of theoretical and methodological and applied aspects of state environmental policy, in particular, state programming, such us: C. Kolstad (1999), R. Macrory (2006), N. Stanley (2009), S. Wolf (2009) etc.

The purpose of the article is to identify the main directions for improving the process of development and implementation of state target programs of environmental protection in Ukraine through the prism of the elaborated recommendations aiming to strengthen the control over the implementation of state targeted economic programs of environmental direction.

2. The main problems related to the implementation of state target programs for the protection of the natural environment in Ukraine

As follows from the recent scientific researches, financing of state target ecological programs can be effective only in case if at least 80% of planned funds are allocated from the budget with their consequent optimization by the method of program-targeted planning. In turn, governmental financing of state target environmental programs in the range of 35–80% of the need may take place, as it generally leads to an improvement in the state of the environment and people's health. At the same time, if the share of the state financing is less than 35% of the total funds provided it is more likely to lead to misuse of public finances (Senyshyn, 2017).

In order to elaborate proposals for improving the process of developing these environmental protection programs, it is necessary to indicate a complex of systemic deficiencies in the implementation of state target ecological programs, namely:

1. Governmental stakeholders in spite of the requirements of Article 8 of the Law of Ukraine "On State Target Programs" (Verkhovna Rada Ukrainy, 2004):
✓ do not conduct a proper control over the implementation of activities and tasks of programs;
✓ practically do not participate in conducting an annual analysis of the state of implementation of programs;
✓ do not provide active work towards involving non-budgetary sources of funding, especially in conditions of budget funds cut down (Ministerstvo ekonomiky Ukrainy, 2016).

2. The state environmental protection programs have not become an active and effective tool for implementing the state environmental policy, which should provide a solution of the most important environmental problems, individual branches of the economy. They act as a "formal paper with a declaration of intention to do something" (Zarzhytskyi, 2012).

3. Within the framework of planning and using the state budget funds, the principles of prioritization of the problems' resolution are not fully respected. Financial resources are sprawled.

4. Estimated volumes of financial resources of programs, including the state budget, are often not consistent with the real possibilities of their financing.

5. In contradiction to the requirements of the paragraph 29 of the Procedure for the development and implementation of state target programs approved by the Resolution of the Cabinet of Ministers of Ukraine dated January 31, 2007 No. 106 (hereinafter – the Procedure), the programs do not include methods for evaluating the effectiveness of their implementation, with due consideration to the limiting regulation for the use of natural resources, and with the legal emission standards (i.e. maximum permissible emission, maximum allowable discharges, maximum permissible pollution level), which should be developed by the state requisition maker taking into account the specificity of the program and its final results (Verkhovna Rada Ukrainy, 1991).

6. There is no opportunity for public control (paragraph 50 of the Order).

7. State requisition makers often use a formal approach to meeting the requirements of the current legislation in the field of development and implementation of state target programs.

8. Unsatisfactory reporting by government stakeholders: non-compliance with deadlines, information is not provided in full and not provided by all executives.

9. The expenditures for the financing of state environmental protection programs are represented in the state budget with lack of transparency.

According to the proposals of the Ministry of Economic Development and Trade of Ukraine, following the results of monitoring of the years 2015-2016 (Ministerstvo ekonomiky Ukrainy, 2016): the state stakeholders continue ignoring the necessity to comply with the provisions of the legislation in the field of development and implementation of the State targeted programs; has not been ensured elaboration of draft normative legal acts on amendments to the programs in terms of clarification of the results indicators, the amounts of financing program tasks and measures, the timing of their implementation, taking into account the actual amounts of funding and the results achieved; government stakeholders have not developed methods for assessing the effectiveness of the implementation of state target programs, taking into account their specifics and end results.

The strategic objectives set out in the "Basic Principles (Strategy) of the State Environmental Policy of Ukraine for the Period until 2020" should be the benchmark when prioritizing objectives of state programs of environmental protection, rational use of natural resources and ensuring environmental safety (Verkhovna Rada Ukrainy, 1995).

3. Experience of developed countries in the field of state programming of environmental protection and its adaptation to the conditions of Ukraine

The experience of developed countries shows that due to conducting research works in the sphere of environmental protection, it is possible to achieve significant savings in implementing environmental measures and significantly reduce the damage from pollution and depletion of environmental components (Avramenko, Kushch, 2016).

Our scientific research confirmed that the governments of the leading countries of the world pay great attention to the problems of programming of environmental protection and environmental safety not only at the interstate but also at the state and regional levels (Hrusheva, 2007). The approach used by the world's leading countries to address these problems is directly based on the understanding that they must be solved locally, where the economic and social life of society is concentrated.

From this point of view, it is worth to explore the experience of state programming in the field of natural environment protection in Japan, where a number of administrative measures are widely used, including (Kernychna, 2013): introduction of standards for production quality and the state of the environment; ecological expertise; concluding agreements between local authorities and enterprises on pollution control, etc. One of Japan's most effective measures for environmental protection programming is the application of the "polluter pays" principle. Also, the country is a leader in using the ecologically friendly technology approach to guaranteeing environmental safety through the development of science.

In the United States, as well as in Europe, priorities have changed in the fight against atmospheric pollution. The main programs are targeting the creation of environmentally friendly technologies, but not on the improvement of waste and polluting emissions treatment. The US Bill "On Water Resources" provides for the implementation of 16 environmental programs. Criminal liability is established for intentional discharge of polluted wastewaters into the natural reservoirs, which threaten the health and life of people. Having created the necessary economic mechanism, the Americans managed not only to stop further pollution of the natural environment but also to significantly improve its quality. In the United States, environmental protection targets are set by the Federal Agency for the Conservation of Nature, and then each state separately proposes concrete measures for their implementation, linking them with their industrial development plans (Avramenko, Kushch, 2016).

Since 1973, special conservation programs have been developed in Western Europe. In these programs, the concept of sustainable development has been commonly recognized, according to which environmental and economic objectives should be aligned in the dynamics. And at the level of the European Union, its member states have developed principles and general measures for legislative acts in the field of nature protection.

New by the content policy of preservation of the environment is implemented in the form of national programs, which provide for the interaction of public authorities, the private sector, science, financial institutions. In all countries, laws on the protection of the natural environment have been adopted, in which the functions of the state for environmental protection regulation are defined, as well as the rights and obligations of environmental users are identified. For example, among such laws should be mentioned the law "On National Environmental Policy" (1970) of the United States of America, the law "On Addressing Environmental Pollution" (1967) in Japan, the law "On Environmental Protection" (1969) in Sweden. Special legislation aimed at preventing and eliminating violations of the quality of individual components of the environment is being implemented. Also, the legislative system on environmental protection is based on numerous regulations issued by local authorities, which take into account the natural geographic and socio-economic specifics of a particular region (Avramenko, Kushch, 2016).

In the 1970s in the United States, a provision was made for mandatory state ecological expertise in all areas of economic activity. The policy in the field of environmental protection and financing of

environmental protection measures are based on the principle of quality standards of the state of the environment. It can be provided by a system of standards on the permissible levels of anthropogenic loading, on the composition of pollution, emissions, discharges, or by the system of taxation of enterprises that allow violations of established requirements of nature use. Both principles can be organically interconnected. An effective method of controlling emissions is the introduction by the US Environmental Protection Agency of "permits" on the maximum allowable amount of pollutants that can be emitted into the environment. This measure has enabled firms, whose pollutant emissions are lower than the limit set for them, to sell their rights to other firms.

The UK's environmental policy is based, first of all, on the qualitative characteristics of the environment. It is recognized that it is necessary to carry out an environmental assessment before planning and designing any construction, and in the future – periodic monitoring of the state of the environment should be applied. Regarding ecological planning and programming, the initial version of the environmental expertise is compared with other variants of estimates, which allows more optimal determination of the parameters of anthropogenic impact (Hrusheva, 2007).

In Hungary, the management of activities in the field of nature conservation is distributed among different ministries and departments. According to the Law "On the Protection of Atmospheric Air", in Bulgaria, only the use of technology that ensures the minimum and allowable emissions of harmful substances into the air is compulsory for enterprises.

The use and protection of the environment in Poland are regulated by the Constitution, laws, and other legislative acts of the state. The State Environmental Inspectorate monitors compliance with laws and regulations (Kernychna, 2013).

In foreign countries, numerous economic and regulatory instruments are used. They are quite effective and diverse. As a result, many of the economically developed countries of the world have accumulated considerable experience in using various economic methods and tools for regulating the process of development ecologically friendly entrepreneurship at the macro and macro levels of economic activity.

In France, the control of water protection is carried out on the basis of the law adopted in 1964. Under this law, six basin administrations operate in the country. In the United Kingdom, according to the Water Resources Act (1973), 10 regional water committees monitor the status of the quality of water. In the Netherlands, in accordance with the law on surface water pollution, industrial enterprises and municipalities are required to have a waste disposal license (Tunytsia, 2006).

In Germany and the other countries of the European Union, the strategy of ecologically oriented management and environmental entrepreneurship is developed and implemented as one of the important areas of environmental modernization. In addition, all German companies are required to pass an environmental audit. Most countries have adopted their national standards that regulate environmental audit. Thus, in June 1993, the main principles and provisions of environmental accounting in the EU were adopted, which came into force in April 1995. According to estimates of the "German Environmental Agency in the area of environmental professional training and advanced training of specialists" now professional environmental interests are grouped according to their priority for those who study, as follows: waste management; environmental law; water economy; soil protection; energy saving; environmental protection at enterprises; regional ecological planning and programming; ecological expertise; environmental policy, etc. (Salatiuk, 2013).

Foreign practice shows that active state regulation is the basis of the whole environmental protection system in economically developed countries. In these regulations, significant priorities are given to economic stimulation and support of entrepreneurship that is developing in the direction of developing ecologically friendly social production.

Thus, social, ecological and economic integration of Ukraine should necessarily take into account the foreign experience of the mechanisms of nature use regulation through systematic improvement and alignment with the international legal, normative-methodical and institutional basis of environmental management and environmental safety.

The experience of foreign countries in the field of environmental programming demonstrates their readiness to actively participate in solving global environmental problems. This put on the agenda the adoption by Ukraine of relevant laws on the implementation of environmental objectives in the national policy and its adaptation to the European ecological space, the harmonization of national environmental requirements, standards and restrictions with corresponding indicators of the leading countries of the world. In particular, the experience of the European Union countries would be extremely useful for Ukraine, since these countries have radically changed the system of state management of environmental protection, and revised the hierarchy of competences of the various levels of state authorities.

4. Modelling the process of management of the state target program of environmental protection in Ukraine

It is important to note that during the formation of state target environmental protection programs, it is necessary to use a model that would allow certain mobility of financial funds that is required to tenable

equal allocation of financial resources in order to obtain the maximum net environmental protection result (Hryniv, 2016). Implementation of state target programs for the protection of the natural environment requires considerable funds and it is necessary to carefully approach their formation and involve all possible sources of their financing.

In order to determine the strategy of formation and coordination of work on implementation and resource provision of tasks and measures of state targeted programs for the protection of natural environment, a program coordinator is formed by the program's initiator, which is the consultative (advisory) collegiate body that operates on a voluntary basis. The principal scheme of government targeted environmental protection program is shown in Figure 1.

Summing up the above, it should be emphasized that the effective implementation of state target programs for the protection of the natural environment requires:
- improvement of the legal and regulatory framework for the process of their formation and implementation;
- developing appropriate methods for assessing the effectiveness of implementation for each target program, taking into account their specifics and end results;
- formation of state, regional, and local environmental funds for state target programs for the protection of the natural environment in order to accumulate and use of financial resources in an optimal way;
- creation of an information support centre of state target programs for the protection of the natural environment;
- clearly defined and specially authorized bodies of management and control over state target programs within the framework of the program implementation.

In addition to the main controlling functions, the management bodies of state target programs for the protection of the natural environment must perform the functions related to:

- development and implementation of measures to mobilize financial, credit, material, and other types of resources for the implementation of tasks and activities envisaged by the program;
- creation of structural subdivisions and mechanisms for the development and implementation of the program;
- preparation of tasks and measures for the program implementation, assessing their effectiveness and determination of the cost of their implementation;
- management of scientific and informational services to support state target programs for the protection of the natural environment;
- organization of conducting procedures of ecological expertise, independent ecological audit at all stages of implementation of program tasks and measures;
- coordination of state target programs for the protection of the natural environment with programs of socio-economic development of the state and regions.

Therefore, the implementation and dissemination of the use of state target programs for the protection of the natural environment in the system of state regulation of environmental protection, rational use of natural resources and ensuring environmental safety will be effective due to their peculiarities. The most important of them, in our opinion, are:
– identification and orientation of all stages of management activity to achieve a clearly specified program goal; the goal should be specified in the relevant qualitative and quantitative indicators rather than in general, such as "improve", "increase", "enhance", etc.;
– establishment from the beginning to the completion of the program implementation certain responsibilities

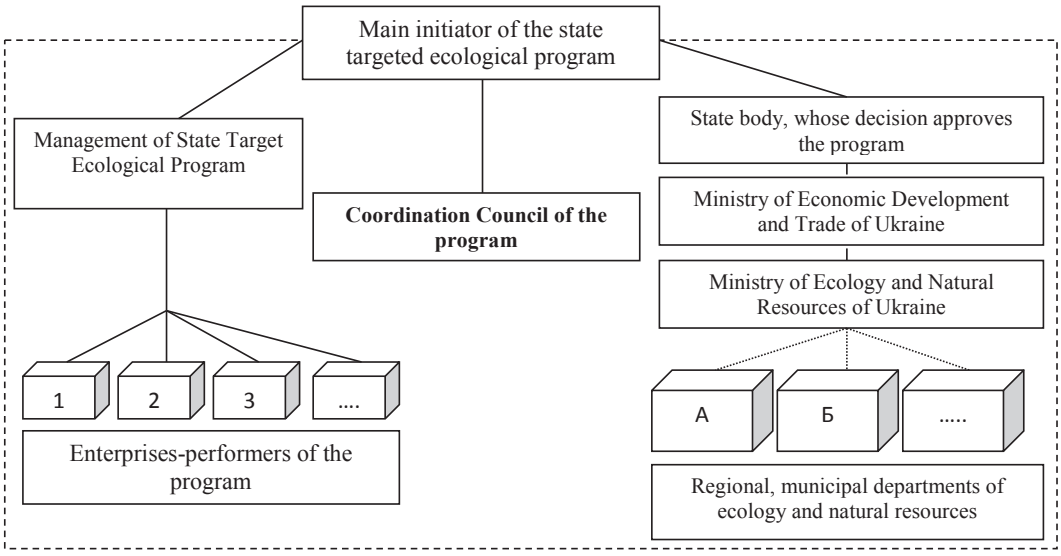

Figure 1. Principal scheme of management of state target programs for the protection of natural environment

Source: compiled by the author

of the target organizational units for the effectiveness of measures and tasks that are carried out both during the period of the program execution and during the process of resource provision;
– identification of all types of resources required for the implementation of program tasks and activities with their ranking according to the priority level;
– conjunction and coordinating the activities of various sectoral and territorial branches of management, in particular via the Program Coordinating Council;
– ensuring the consolidation of inter-sectoral interests in solving territorial problems;
– concentration on the results to be obtained;
– a clear idea of the result increases the viability of attracting all kinds of resources.

5. Recommendations for improving the efficiency of functioning of the system of domestic state programming for the protection of natural environment

Therefore, in our opinion, the consideration of the following proposals will contribute to the improvement of the process of development of state targeted programs for the protection of the natural environment in Ukraine:

1. Promotion of innovation activity and research work in the field of monitoring the state of the environment, including:
- providing sufficient state support to research programs related to assessing the natural resource potential of Ukraine, developing and implementing a system of indicators for balanced development and spatial planning methods, the impact of environmental factors on the health of the population, as well as demographic trends;
- conducting fundamental research on the formation of a new ideology of the life of Ukrainian society, aimed at the environmentally friendly economy, production, consumption, politics, education;
- investigating the ability of natural ecosystems to withstand anthropogenic burden;
- economic evaluation of the cost of natural resources;
- promotion of scientific research in the field of effective teaching methods, tools for assessing the balance of development, the formation of lifestyle, attitudes and values.

2. Increasing public involvement in the development of state environmental protection projects.

3. Transparent information provision and access to reports on the implementation of state programs in the field of environmental protection.

4. Establishment of stable bilateral communication and cooperation between the developer of state environmental protection programs and the public environmental organizations and active population.

5. The initiator of the program should ensure constant awareness of the population on the solution of local and national environmental problems and the process of transition to a balanced development with the active involvement of the media.

6. Improving the efficiency of management and professionalism of the executors of state programs in the field of environmental protection, including:
- ensuring the proper training and qualification improvement for persons authorized to perform public functions on balanced development, in particular balanced development planning;
- ensuring transparent decision-making on the use of natural resources, the implementation of investment projects that affect the quality of life of people, with the involvement of interested persons during their public discussions;
- compulsory following the legal procedures for decision-making in the field of environmental protection;
- introduction of clear mechanisms of reporting on the results to citizens at all levels;
- promoting a more complete integration at the vertical level between local and state authorities in the process of decision-making.

It is also necessary to change the approach to strategic planning in developing state environmental protection programs, based on the following:
✓ the whole society, not just the state, is responsible for the environmental conditions;
✓ not a fixed plan should be developed, but a system that can be continuously improved;
✓ goals are determined based on an integral and complex approach;
✓ decisions are made transparently;
✓ continuous analysis of the results in order to improve environmental management.

6. Development of a schematic model for the effective implementation of the state target program for the protection of the natural environment in Ukraine

State target programs of environmental protection, rational use of nature (hereinafter – STEP) is an integrative environmental policy instrument, as well as the most effective and consistent with the principle of state regulation. Its successful application enables the most effective addressing of a set of complex problems associated with the environmental issues in Ukraine.

On the basis of our research, we elaborated proposals aimed at improving the development of state targeted environmental protection programs in Ukraine. We believe that the model for the effective implementation of the state target program for the protection of the natural environment should look like this (Figure 2).

According to the list of state target programs that were implemented within the framework of budget programs in 2015, there were 6 environmental programs against 18 in 2010 (Ministerstvo ekonomiky Ukrainy, 2016).

During 2014-2015, there were positive trends regarding the improvement of the management of the STEP:

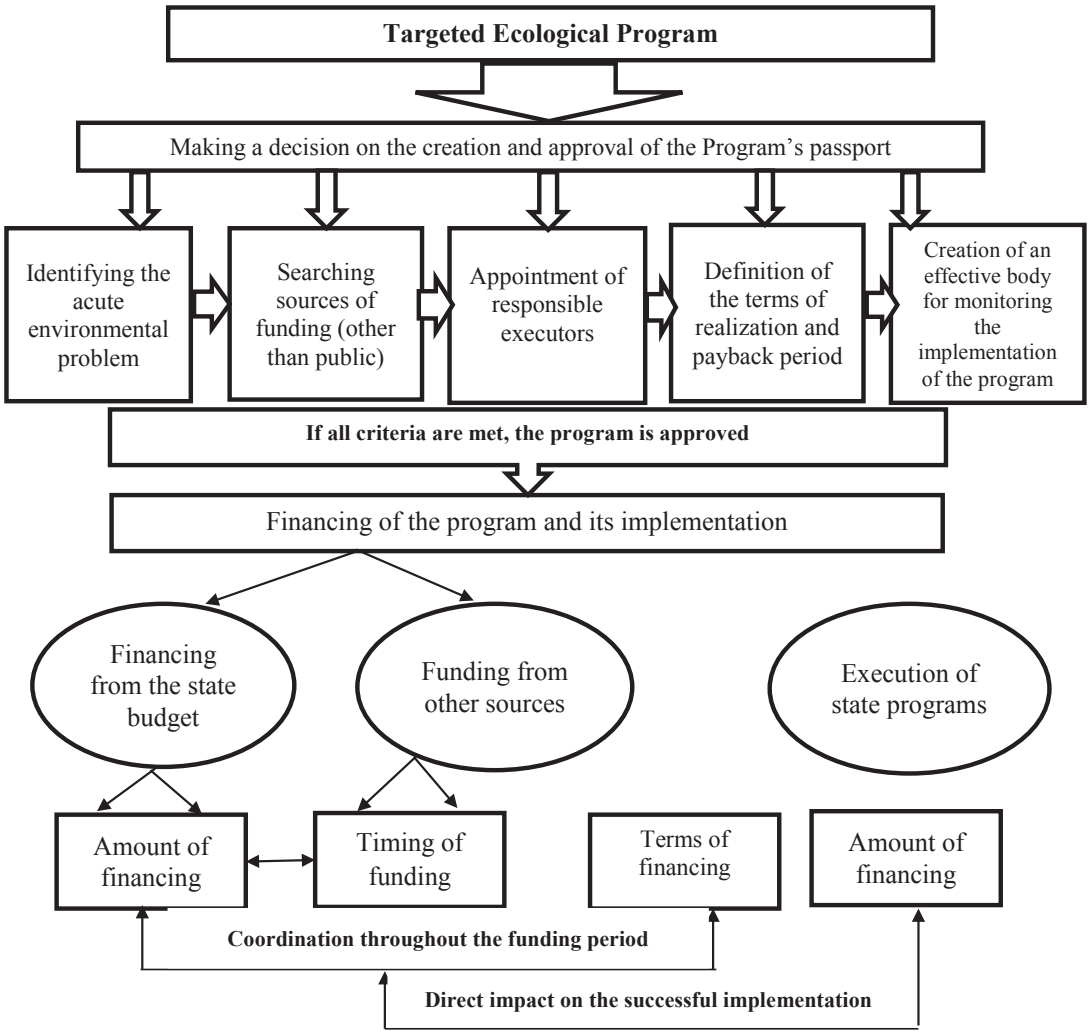

Figure 2. A descriptive model of effective implementation of the state the target program of environmental protection

Source: compiled by the author

• the share of financing is gradually increasing, for example in 2015, the National Target Program for the development of the water sector and the environmental rehabilitation of the Dnipro river basin for the period up to 2021 was financed by 89.4%; the State Target Program "Forests of Ukraine" for the period of 2010–2015 has been financed by 305.7% (Verkhovna Rada Ukrainy, 2012; Kabinet Ministriv Ukrainy, 2009);
• certain efforts are made to systematize and integrate programs for a more comprehensive solution to the problems of environmental protection and reproduction. The questions of optimization of state target programs and improving their operational management are considered in the Order of the Cabinet of Ministers of Ukraine dated March 23, 2011, No. 223-p, and the Resolution of the Verkhovna Rada of Ukraine "On Main Directions of Budget Policy for 2012" dated May 13, 2011, No. 3358–IV;
• the previous experience of programs' realization is taken into account: the miscalculations of the implementation of the Program of integrated flood protection in the basin of the Tysa River in the Transcarpathian region for 2002–2006 and the forecast by 2015 are taken into account in the development of the National Target Program for the Development of Water Management and Ecological Improvement of the Dnipro River Basin on the period until 2021 and the National Target Program "Drinking Water of Ukraine" for 2011–2020 (Verkhovna Rada Ukrainy, 2012, Verkhovna Rada Ukrainy, 2011).

7. Conclusions and recommendations

However, an analysis of the implementation of environmental target programs in Ukraine shows that there are significant miscalculations when applying them as an instrument of environmental policy.

1. The lack of financing of state target programs leads to the dispersal of budget funds and a significant reduction in efficiency. According to the reports of the Ministry

of Ecology and Natural Resources of Ukraine, the state target environmental program for environmental monitoring (2008-2012) in 2010 was actually financed only by 9.2% of the planned annual amount.

2. There are a lot of unresolved fundamental problems of identifying priorities for the formation of state programs, and no effective mechanism for selecting problems. The programs' measures are orientated to achieve the goal of overcoming the consequences, rather than the implementation of adequate preventive measures.

3. Lack of linking the financing of state target programs with the capacity of the state budget during the whole term of the program implementation. "The National Program for the Development of the Ukrainian Mineral Resources Base for the period up to 2030" in 2012 had an actual amount of financing of 52% of the planned amount. It was caused by lower incomes to the state budget from the fees for geological exploration work carried out by Naftogaz, which is allowed to postpone its tax liabilities.

4. The low level of programmatic and inter-programmatic coherence on the background of a large number of areas and a significant number of state target programs leads to duplication of tasks and activities of state target programs, which creates the possibility of financing the same activities from the budget funds under various programs. This, in turn, requires an urgent review of government targeted programs in order to exclude duplicate activities. For example, the National Program "Drinking Water of Ukraine for 2011-2020" contains some of the measures having been already announced in the National Program for the Ecological Recovery of the Dnieper and improvement of the quality of drinking water.

5. The lack of proper monitoring and control over the implementation of state target programs hinders properly conduct and adjust the implementation of the STEP. This impedes the establishment of reliable control over execution by both the responsible manager of funds and the Ministry of Finance and the State Treasury, complicates the analysis of cost-effectiveness and does not add transparency to budget flows. Given a large number of executives of the state program that belong to different executive structures and the need for wider involvement of extrabudgetary funds to finance programs, there is a need to create a coordinating structure at the level of the Cabinet of Ministers of Ukraine.

Given the complex nature of the STEP, in order to increase their efficiency and effectiveness, it is necessary not only to improve development standards, approval procedures and implementation mechanisms but also radically revise the system of environmental target programs in Ukraine, which has already been developed in order to unify and optimize it. Taking into account that the majority of the STEP is implemented over a sufficiently long time (more than five years), and the state of their implementation due to the above-mentioned shortcomings is incomplete, ineffective and non-systematic, a careful revision of existing programs is a priority task. It is also necessary to assess the effectiveness of the implementation and expediency of continuing the implementation of existing programs, on the one hand, on the other hand – to build a sophisticated system for managing the formation and implementation of new integrated programs.

In order to increase the efficiency of the state programing of environmental protection, it is necessary to:

- improve the regulation of the mechanisms and procedures of the institution of state target programs. For this purpose, the Government of Ukraine should improve the procedure for the development and implementation of programs, which would regulate: strengthening control over the implementation of state target programs by clarifying the functions of the state customer-coordinator in relation to its responsibility for the preparation and implementation and increasing requirements for state customers regarding the financing of the envisaged measures, the issue of attracting reliable and predictable sources of extrabudgetary funding to ensure a reduction in the share of budget financing and opportunities manoeuvring in case of underfunding of state target programs at the expense of the state budget;
- develop and legislatively establish a mechanism for the introduction of expert controlling over the implementation of state target programs, targeted and effective use of funds to identify and remedy shortcomings in the system of state target programs;
- resolve the issue of codification of state target programs within the framework of the Budget Classification to establish operational monitoring of financing of state targeted programs by the Ministry of Finance and the State Treasury and to ensure openness and transparency of procedures for the allocation and directing of budget funds to finance the activities of the STEP;
- optimize the structure of the STEP by excluding from their list those programs, which do not correspond to the development priorities, which will allow to concentrate funds on solving priority tasks and to match the need for financing programs with real budget possibilities and to ensure full financing of programs within certain time limits;
- introduce a scientifically based methodology for assessing the effectiveness of the STEP, with due consideration of the limitations on the use of natural resources, and with the emission standards (including maximum permissible emission, maximum allowable discharges, maximum permissible pollution level), to ensure methodological and organizational unity in the process of conducting annual audits on the implementation of targeted programs. This methodology should combine the formalized calculation procedure and expert assessments;

In order to strengthen control over the implementation of the STEP, it is necessary:

1. To clarify the functions of the state initiator-coordinator regarding his responsibility for the preparation and implementation of the STEPs, their financing, coordination of activities of state initiators, reporting on the progress of the programs' implementation and the introduction of personal responsibility for the implementation of the STEPs, namely, the final results and the purposeful and efficient use of funds;

2. To oblige the initiator before the beginning of the implementation of the STEP to approve and submit to the Ministry of Economic Development and Trade of Ukraine the provisions on the management of the implementation of the STEP, which will determine:

- the procedure for forming an organizational and financial plan for the implementation of the state target program;
- mechanisms for adjusting program activities and their resource support during the implementation of the state target program;
- procedure for ensuring the publicity of monitoring of the implementation of program activities;

3. To increase the requirements to the state initiators regarding the financing of the STEP activities at the expense of extrabudgetary sources (other sources of funding);

4. To develop a mechanism of compensation in case of under-financing programs at the expense of state budget funds from extrabudgetary sources;

5. To increase the requirements for annual reports from state initiators on the progress of the implementation of the STEP;

6. To work out the mechanism of expert checks on the progress of the implementation of the STEP, targeted and effective use of funds to identify shortcomings in the system of state target programs and develop measures for their elimination.

For successful implementation of the state target programs, it is expedient to use a new system in the framework of modern management – controlling, which, as according to the experience of the developed countries, enables coordinating and integrating efforts at a higher professional level, as well as independent environmental audit at all stages of the implementation of the program tasks and activities. Using a controlling mechanism and environmental audit will increase the effectiveness of program implementation and the level of reaching the program objectives.

Solving the problem of transforming the system of environmental target programs into an effective tool for implementing medium and long-term state policy is a complex task. To solve this issue, it is required to join efforts of central and local executive authorities, to introduce interconnected and comprehensive changes in the budget sphere, as well as in investment, industry and other types of national policy and their legislative provision.

Consequently, the existing mechanism of state programming in the ecological sphere in Ukraine can be classified as one of the "soft" type, which mainly aims at combating negative environmental consequences, and not with the causes of environmental destructive influences. For its improvement on the path to international integration into the world community, it is advisable to draw attention to the experience of leading countries in this area, especially the EU member states. A further profound study of the practice of international environmental management is needed in order to apply the integrated mechanism of state environmental protection management by introducing the latest tools, levers, methods in this area of public administration.

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COMMON FEATURES AND DISTINCTIONS BETWEEN HIGH TECHNOLOGY AND INNOVATION

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Abstract. The goods, which are positioned on modern global markets as innovative and high-tech products, occupy more and more segments, owing to the contemporary modifications of the innovation diffusion theory and the ways of its implementation on high-tech markets. However, the meaning of the term "high technology" and "innovations" is quite disputable. An identification of the ontological characteristics of these definitions is of particular interest and practical value in terms of the transformation of a scientific and methodological framework for control of innovation diffusion in conditions of invariance on the market of high-tech information technology. Therefore, the author's article is aimed at the identification of the above-stated definitions and generalization of their distinctions. *Methodology.* The methodology of the article is based on the theoretical researches of Ukrainian and foreign scientists, which are synthesized, systematized, and analysed to identify the distinctive features of "high tech" and "innovations". One of the critical methodological tool, represented in the research, is an application of frequency analysis using online service "Google Books Ngram Viewer", which enabled us to compare frequency of references in scientific researches of the term "innovations" and "high technologies" as well as to compile analytical database of the research. *Results.* As a result of the author's study, it has been established that the frequency of using the term "innovations" is continuously increasing and the definition itself has a huge variety of interpretations. This paper suggests generalizing the innovations as the implementation of the new idea, which produces widespread and long-term changes. As distinct from innovations, a term "high technology" means the narrower spectrum of radical changes. Although it has a few names, such as "high-technology", "high tech", "high-tech", "hi-tech", which, besides technology, can have other functionality. *Practical implications.* The presented results make it possible to develop more efficient communication channels for innovation diffusion, more precisely to identify innovators and mechanisms of their involvement in corporate activities, alternative forms of innovative activities in corporations. *Value/originality.* As a result of the study, it has been proved that technologies have common features with radical technical innovations, such as high science intensity, enhanced efficiency. Nevertheless, while being distributed on the market, innovation becomes a commodity and high technologies remain the same until the creation of state-of-the-art technologies. On this basis, it is possible more precisely to introduce innovations of IT companies according to information technology market segments.

Key words: global, markets, goods, modifications, theories, diffusion, innovations, high technologies, corporations.

JEL Classification: L00, N7, O14, O17, O3, Y30

1. Introduction

In conditions of modern dynamic economy and reduction in the duration of product cycles, a key to commercial success is an ability continuously and promptly to create new products and processes, driven by the development of new technologies.

The emergence of new technologies depends on the efficiency of researches. Thus, according to data of the World Bank (2017), for the period between 2000 and 2014, a number of R&D scientists has increased by 1.39 times (from 807 to 1127 scientists per a million of people), and a number of patent applications, submitted to the World Intellectual Property Organizations (WIPO), – by 2.08 times for residents and 1.77 times for non-residents (up to 1.7 and 0.8 millions of patent applications). The number of scientific and technical articles in journals has increased by 1.9 times (from 1.2 to 2.3 million articles) for the period between 2003 and 2016. At the same time, proceeds from intellectual property used for the same period has increased by 3.59 times (from 92,059 to 330,084 billion US Dollars), demonstrating an increase in the efficiency of researches.

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A final result of the research is to gain new knowledge that will become a foundation for high technologies and innovations. Cutting-edge technologies, which implement the innovative developments, are called high technologies. Creation of new high technologies is always based on innovations, which is the key driving force of economic development and is mainly a combination of the available production factors (Schumpeter, 2011). Sometimes high technologies and innovations are identified as the same ones.

The high technology world is characterized by an extremely high level of market and technological uncertainty (Moriarty & Kosnik, 1989), and innovations in the high-tech sphere are not always welcomed by society. Thus, Dvorak keyboard, that has been developed for decades, despite its advantage over the standard QWERTY keyboard, is not so widespread (Rogers, 2010). At the same time, most of the available innovations have been developed as a response to discrete events, problematic stories and new technological opportunities (Taalbi, 2017).

Despite the fact that high technology sector is usually considered as a dynamic sector of the economy, since 2000 a very significant slowdown of entrepreneurial activities has been documented, primarily, in the USA (Haltiwanger, Hathaway & Miranda, 2014).

It leaves relevant the issue of the study of high-tech market development and peculiarities of innovation diffusion in this market.

In modern global markets, the goods, which are positioned as innovative and high-tech products, occupy more and more segments owing to modern modifications of innovation diffusion theory and the ways of their implementation on high-tech markets. However, the meaning of the terms "high technologies" and "innovations" is still quite disputable. An identification of ontological characteristics of these categories is of considerable interest and practical value in terms of the transformation of a scientific and methodological framework for control of innovation diffusion in conditions of invariance on the market of information technologies. The current paper aims to demonstrate the terminological distinctions between high technology and innovation.

2. Definition of high technology

In the literature, the term "high technology" is close to the term "high-technology", "high tech", "high-tech", "hi-tech" (Figure 1).

Fig. 1 shows that in the second half of the 1980s of XX century the acronym "high-tech" became popular. The term "high-tech" was used as an acronym of high technology or an adjective that means using, requiring or involved in high technology: high-tech product, high-tech industry, high-tech cluster, high-tech sector. "Hi-tech" is often understood as architectural or designer style.

The term "high technology" is used to define technology. High technologies are characterized by the high degree of uncertainty in the achievement of a final result, uniqueness, prompt obsolescence, shortening of the life cycle – some of the high technologies are outdated at the stage of introduction into production (Skyba, 2014). A typical feature of high technology is high science intensity, high risks, and rapidity of changes in high-tech markets. Table 1 shows definitions of high technology by different authors.

Thus, high technology is a cutting edge technology, having a high knowledge intensity, which enhances the value of product or process for the consumer in the sense that the consumer obtains better quality, reduced costs or easier use of products in comparison with the outdated technology.

Modern high technologies are information technologies, programming, robotic technology, computing technology, aerospace technology, nanotechnologies, artificial intelligence, microelectronics, nuclear power engineering, biotechnologies, pharmaceutics, and gene engineering.

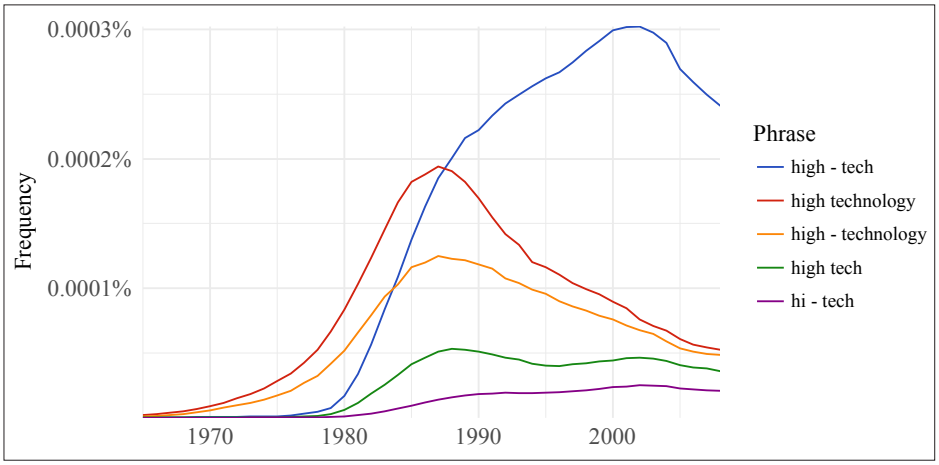

Figure 1. The frequency of n-grams "high technology" etc.

Source: data from Google Books Ngram Viewer (https://books.google.com/ngrams)

Table 1

Definitions of high technology

Author	Definition
Shanklin, Ryans & Ryans (1987)	1) an industry that has the double number of technical employees and doubles the R&D outlays; 2) technology that requires a strong scientific/technical basis; can obsolete existing technology rapidly; as new technology comes on stream its applications create or revolutionize market and demands.
Laliberté (2010)	1) any highly technical or specialized technological equipment or application; 2) mostly used for technology involving complex electronics or software.
Skyba (2014)	A synthesis of science, art and technological knowledge.
Butko (2017)	1) technologies, based on systematized advanced knowledge, which can be materialized in certain products; 2) ensure more efficient cost-benefit ratio in comparison with previous technologies, exceeding the performance indicators of previous analogues or having no analogues in the past; 3) trigger a chain reaction of innovations or initiate dynamic processes of sociocultural systems self-organizing.
Keeble, Wilkinson (2017)	1) a catch-all phrase usually denoting industries producing technologically-advanced, sophisticated and changing products; 2) firms and industries whose products or services embody new, innovative and advanced technologies developed by the application of scientific and technological expertise.

Source: formed by the authors

3. Definition of innovation

In the literature, the term "innovation" is used very often, even too often. For the last years, it has become just another buzzword (Shaver, 2014). According to the data of Google Books Ngram, a frequency of use of the term "high technology" is significantly lower than the use of the term "innovations" (Figure 2).

Table 2 shows definitions of the term "innovation" by different authors.

Thus, innovation is the implemented new ideas, which produce widespread or long-term changes. Creation and introduction of innovations is an efficient tool for enhancing efficiency and competitive advantage of individual enterprises, as well as the entire industries. In case of successful diffusion, the innovation becomes a commodity.

4. Common features and distinctions

A review of the recent literature indicates linkages between high technology and innovation. The majority of existing articles fail to provide clear distinctions between the features of high technology and innovation. Comparing the terms "high technologies" and "innovations" Butko (2017) defines the latter as a broader notion, which encompasses a wider spectrum of radical changes. A common feature of high technology and an innovation is that they must have been implemented.

In case of innovation, the level of maturity of products ultimately reduces the qualification requirements and it subsequently becomes a commodity: products become reliable, production processes – standardized, and price premium, obtained from the initial technological

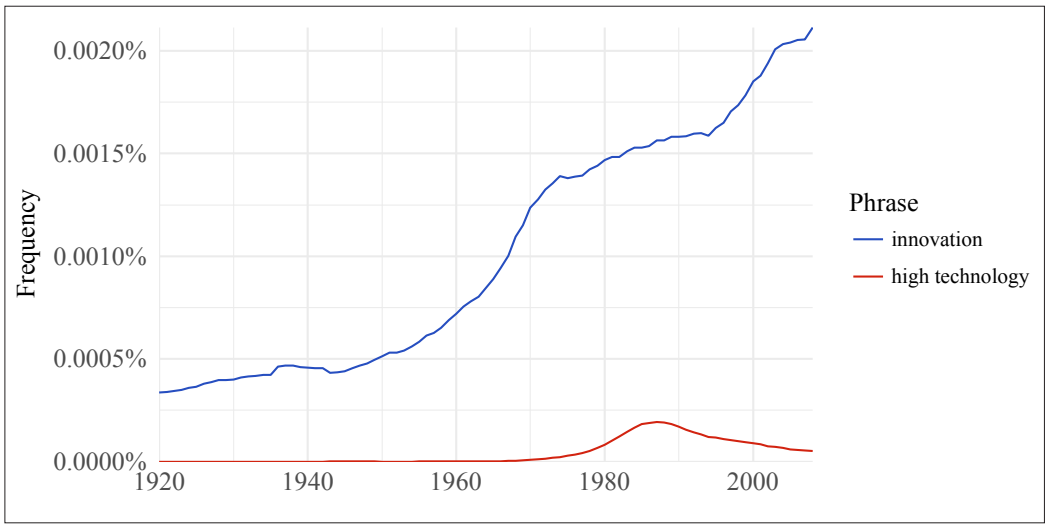

Figure 2. Comparison of frequency of n-grams "innovation" and "high technology"

Source: data from Google Books Ngram Viewer (https://books.google.com/ngrams)

Table 2
Definitions of innovation

Author	Definition
Dosi (1988)	The search for, and the discovery, experimentation, development, imitation, and adoption of new products, new production processes, and new organizational set-ups.
West and Farr (1990)	Refers to the deliberate initiation and application within a firm of ideas, processes, products or procedures which are new to the adopted unit and are created in order to benefit the firm or the wider society.
OECD (2005)	The implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations.
O'Sullivan & Dooley (2009)	The process of making changes, large and small, radical and incremental, to products, processes, and services that results in the introduction of something new for the organization that adds value to customers and contributes to the knowledge store of the organization.
Christensen (2013)	Refers to a change in one of the technologies, using which an organization transforms labour, capital, materials, and information into products and services of greater value.
Dos Santos Faria (2014)	Means technologies or practices that are new to a given society and they are not necessarily new in absolute terms.
McKinley, Latham, & Braun (2014)	Any novel product, service, or production process that departs significantly from the prior product, service, or production process architectures
Nahm (2014)	The process, used by firms to develop, master, and commercialize new product designs, services, and production processes. Includes the process used to introduce new and improved technologies and practices in commercial markets.
Tidd and Bessant (2014)	Described as the process of creating value from ideas.
Witzel (2014)	The process of introducing a new idea that creates a widespread or long-term change.
Mukhtar (2016)	In general, innovation can be considered as an interactive process to bring value into the market. In many cases, the process is initiated by a technological breakthrough from research activity. This activity is followed by other activities such as manufacturing and marketing.

Source: formed by the authors

advantage, is exhausted (Nahm, 2014). At the same time, science intensity of products reduces. In the case of high-tech products, qualification requirements and science intensity are high during the whole product cycle.

Ding (2016) notes that 95% of innovations in the high-tech sector are seen in the technical areas. Oslo Manual highlights four types of innovations (OECD, 2005): product innovations, process innovations, organizational innovations and marketing innovations. High technologies are usually related to the first ones.

5. Conclusions

Therefore, based on the analysis of publicly available studies, it has been established that the frequency of using the term "innovations" is continuously increasing, and the term itself has a huge variety of interpretations. This paper suggests a generalized interpretation of the new idea, which produces widespread or long-term changes. As distinct from innovations, the term "high technology" means the narrower spectrum of radical changes, however, it has a few names, such as "high-technology", "high tech", "high-tech", "hi-tech", which, besides technology, can have other functionality. It can belong to high technology, architectural or designer style. Concerning the ontological characteristics, we suggest understanding is as cutting edge technologies, including the high level of knowledge intensity that enhances the value of product or process for the customer in the sense that such level ensures better quality, reduces costs or makes use of product easier in comparison with the outdated technology.

High technologies have common features with radical technical innovations, like high science intensity, increased productivity; although, in the result of market diffusion innovation becomes a commodity and high technologies remain the same before the creation of the new advanced technologies.

The results presented enable us to develop more efficient communication channels for innovation diffusion and more precisely to identify innovators and mechanisms of their involvement in corporate activities, alternative forms of innovative activities in corporations. On this basis, it is possible more precisely to introduce innovations of IT companies according to information technology market segments. Therefore, it is advantageous to study innovation diffusion in high-tech markets, taking into consideration the specifics of such innovations.

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COMPLIANCE AUDITING IN PUBLIC ADMINISTRATION: UKRAINIAN PERSPECTIVES

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Abstract. *Purpose.* In December 2016, the updated INTOSAI standards for government auditing were enacted that provided a methodological basis for conducting various forms of public audit, in particular, public compliance auditing. The use of ISSAIs is aimed at maintaining high-quality control measures to ensure the public administration system accountability and transparency. The aim of the research is to consider the current state and prospects of introducing the public compliance auditing into the practice of the Supreme Audit Institution in Ukraine. *Design/methodology/approach.* The methodological basis of the study was to conduct the best practices comparative analysis in public auditing and to implement the desktop study of theoretical scientific researches, open analytical data produced by governmental and non-governmental bodies. *Findings.* The analysis of the Accounting Chamber of Ukraine's reports proved that the control activities contained the compliance auditing elements. In this context, a proper legal framework for carrying out compliance auditing is not yet established and the appropriate methodological developments are not available. The author believes that implementing the ISSAI standards for the public compliance auditing may be accelerated due to the step-by-step implementation of the activities proposed. *Practical implications.* The specific recommendations on implementing the compliance auditing in accordance with the ISSAI standards requirements are important to regulators. *Originality/value.* The study can be the basis for further research in the field of the public compliance auditing theory and methodology, and the results may be useful for practitioners.

Key words: compliance auditing, regularity, propriety, transparency, public administration.

JEL Classification: K20, P43

1. Introduction

Over the last years, the role of Supreme Audit Institutions (SAIs) in supporting the good governance in the public sector has been reconsidering. General Assembly of the UN in the Resolutions 2011 (A/RES/66/209) and 2014 (A/RES/69/228) noted the critical role of SAIs in supporting the efficient, accountable, effective and transparent public administration that forms the basis for achieving the Millennium Development Goals and the Sustainable Development Goals (A/RES/70/1).

The activities of the International Organization of Supreme Audit Institutions (INTOSAI), which consists today of 194 full members and 5 associated members, are directed to high standards of external independent audit support, sharing of the best practices in ensuring the efficient work of governments, their transparency, accountability, and effectiveness in the fight against corruption. At the last XXII INTOSAI Congress, which was held in the United Arab Emirates in December 2016, The Abu Dhabi Declaration was adopted. The important issues that were discussed at the Congress included the adoption of an INTOSAI Strategic plan for 2017–2022 and the revised version of individual ISSAI's professional standards.

Now the current ISSAI standards secured three main forms of public audit – financial auditing, performance auditing, and compliance auditing. While the financial auditing and performance auditing have long been included in the SAIs' activities of different countries, this is not true for the compliance auditing.

Nowadays many countries, particularly Bulgaria, Denmark, Estonia, Finland, Germany, Hungary, Ireland, Latvia, Slovenia and the like conduct public compliance auditing. The positive experience of these countries in conducting the compliance auditing contributed to its generalization in the writing of ISSAI standards, which allows extending it to other countries. At the same time, different types of SAIs, particularities of legislation and government control systems will influence the process of public compliance auditing.

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Ukraine is in the process of reforming the public finance control system. The Accounting Chamber of Ukraine as the Supreme Audit Institution, was formed in 1996, is a member of INTOSAI since 1998 and EUROSAI – since 1999. In 2015, the Law of Ukraine "On the Accounting Chamber" renewal took place, which established the requirement of applying the ISSAI international standards. Without dwelling on the advantages and disadvantages of the law adopted, which require a special study, we note that in the list of the Accounting Chamber's powers the financial auditing and performance auditing are specified, but not the compliance auditing (Law of Ukraine On the Accounting Chamber 2015. s.4 (2)).

This non-compliance with ISSAI standards requirements resulted in investigating the prospects of the ISSAI standards in Ukraine in general and compliance auditing in particular. The logical structure of the research includes the consideration of the reasons for the emergence and development of the public compliance auditing as one of the main forms of the public audit, study of international best practice in this area, and the requirements of relevant ISSAI standards to assess the possibility of their use in the Ukrainian practice, analysis of the current situation, prospects of compliance auditing implementation in Ukraine, and identifying the recommendations for this process acceleration.

Methodological basis of the research presented was to conduct a comparative analysis of best practices in public auditing and desktop study of the documents of the UN, INTOSAI, the Verkhovna Rada of Ukraine, the Accounting Chamber of Ukraine, theoretical scientific researches and open analytical data produced by governmental and non-governmental bodies.

2. Compliance auditing in the public sector: literature review and prerequisites for securing the compliance audit in the ISSAIs

The compliance auditing refers to the traditional forms of an audit that next to financial auditing has been known since Ancient Egypt and China. As Dye and Stapenhurst (1998) noted, in the public sector in Europe the compliance auditing took on importance since the 18th century when the law compliance realization covered the financial accounts. At that time, the issues of public money receipt, saving and creation were of key importance (Othman et al., 2013). The public audit took a new value – to raise awareness as to public finances administration and management. The conception of state auditors independence and self-dependence was firmly established, the consolidation of legal provisions in public finances auditing was founded, and the basic institutional patterns of the public auditing were grounded, namely auditing chambers headed by the Auditor General (Anglo-Saxon tradition spread in Great Britain, Denmark, Sweden, Finland and etc.) and judicial boards (French or Latin tradition widespread in France, Belgium, Spain, Italy etc.).

After World War II, there was a remarkable public audit expansion, new Supreme Audit Institutions were formed whose self-sufficiency and independence were assured by the Constitution of the country. The circle of bodies under control including not only the government institutions and enterprises but also private persons was widened. New methodologies of state earnings and losses auditing were created; the auditing was applied to not only the analysis of accounting legitimacy and accuracy and financial reporting reliability but to estimating the effective handling of public funds as well. International organizations uniting the supreme bodies of public finances control of different countries were established (INTOSAI, EUROSAI etc.).

The appearance of New Public Management in 1980th provoked the approaches changing in public sector accounting and auditing (Hood, 1995; Reichborn-Kjennerud, 2013). For example, Mintzberg (1980), while describing different types of organizational structures, notes that many public institutions have a simple and sound organizational structure which he classifies as the Machine Bureaucracy. Organizations that have such a structure are characterized by hierarchy and simple processes and operations, which repeat themselves, have the standardized form and are predictable. Therefore, external control in such organizations is associated with determining compliance with regulations, standards, and procedures. That is why the Machine Bureaucracy is associated with external compliance auditing (Mintzberg, 1980, p. 333). However, more complex organizational structures require different approaches in the field of control to assess not only compliance with regulated standards but also to determine their appropriateness, effectiveness, and efficiency.

The added complexity of organizational structures and management development contributed to a significant spread of the performance auditing that has been used successfully by countries such as Canada and Sweden since the late 50s of the 20th century. SAIs began to conduct inspections of public expenditures not only in respect of their compliance with the law but also in the context of social benefit.

At the end of the millennium, a number of scientific studies appeared in the field of public audit transformation in the direction of the performance audit development and its comparison with traditional forms of public audit, in particular with the compliance auditing (Funnell, 1994; Barzelay, 1997; Dye and Stapenhurst, 1998; Pollit et al., 1999; Jones and Pendlebury, 2000; Gomes, 2001 and others). Studies from Canada, Sweden, UK, USA spread in Europe, Australia, New Zealand, Asia, and South Africa. Researchers have noted the need to develop an appropriate methodology

of assessing the performance, which should include an assessment of the economy, efficiency and effectiveness, develop the evaluation criteria, auditing techniques, consider fundamental weaknesses in the public audit function (Bowerman et al., 2003; Pearson, 2014).

At the same time, it should be noted that the compliance auditing does not become irrelevant and acquires further development, and the scientists such as Barzelay (1997), Pollit et al. (1999), Gomes (2001), Ruffner and Sevilla (2004), Mayne (2006) emphasize the necessity and importance of its conducting. Also, the compliance auditing continues to be instrumental in SAIs endowed with their own jurisdiction, to support decisions with relevant evidence (Reichborn-Kjennerud, 2013).

Gomes (2001) emphasizes the effectiveness of compliance auditing to evaluate the internal performance of the organization and its goal achieving. This idea was widely applied in practice, especially with the development of the institute of internal audit. In addition, adopted in the United States in 2002 the Sarbanes-Oxley Act and similar laws in other countries increased the development of internal control systems in organizations (Hua-Wei, 2009) and has become a powerful impetus to research in this area (Lenz and Hahn, 2015). This legislation had an effect both on the private sector and public institutions and organizations. Today, the internal compliance auditing in the public sector is aimed at the anti-money laundering procedures and financing of terrorism prevention, conflicts of interests, developing the policies and procedures aimed at the compliance of the organization's activities with current legislation, information flows protection, fraud and corruption control, etc.

In addition, the international standards, approved by The Institute of Internal Auditors (IIA) and Committee of Sponsoring Organizations of the Treadway Commission (COSO), contribute to further interrelation and development of internal and external public compliance audit, and securing the public compliance auditing in the ISSAIs confirms its importance and causes the necessity to make further investigations in the area.

Despite the long developmental history, in the last 200 years, the conception of the compliance auditing has not changed substantially. Thus, O'Regan (2004) defines compliance auditing as follows: "compliance audit – an audit of compliance with external regulations or internal control procedures". However, he emphasises that "… the verification of compliance with external or internal requirements…" is the primary goal of the compliance auditing (O'Regan, 2004, p. 70). Arens et al. (2012, p. 14) offer the similar definition: "A compliance audit is conducted to determine whether the auditee is following specific procedures, rules, or regulations set by some higher authority". The authors also point out that governmental units due to substantial regulatory control require the compliance audit conducting.

It should also be noted that in the international practice, the public compliance auditing is performed both by that name and as the "regularity audit". In some countries, such as in the Federal Republic of Germany, these names are used in parallel. Along with this, different SAIs perceived the essence of the public compliance auditing as virtually the same and cover their contents on their own public resources, in particular:

"… The essence of "Compliance Audit" is in assessing the extent to which laws and regulations (authorities) have been respected" (Supreme Audit Institution of India, 2013);

"… Compliance audits are aimed at checking the compliance of the relevant transactions with the compliance requirements set forth in legislation and making recommendations in order to improve the functionality of the internal control system" (National Audit Office of Estonia, 2014);

"… The objective of a compliance audit is to examine whether legislation, lower-level regulations and guidelines issued by authorities have been complied with in an area that falls within the National Audit Office's mandate. Compliance audit also strives to determine whether activities have been arranged in accordance with the budget, the principles of good administration, policies (objectives) and financial or agreement conditions" (National Audit Office of Finland, 2016);

"… Compliance audit shall mean the review of the financial management and control systems, including internal audit, and managerial decisions relating to the organisation, planning, management, reporting and control of budgetary and other public resources and activities within the audited organisation in respect of its adherence to requirements set out in statutory instruments, internal instruments and agreements" (Bulgarian National Audit Office, 2017);

"… The aim of a regulatory audit is to obtain assurance as to whether: transactions and operations of the audited entity comply with the requirements of laws and regulations; the design and application of the laws and regulations ensure transparency of the system. The regulatory audit includes a review of compliance of transactions and operations of the audited entity to the requirements of laws and regulations, as well as to the planned results" (State Audit Office of Latvia, 2015);

"… In its audit of regularity and compliance the Bundesrechnungshof examines whether the laws, the budget and pertinent regulations, provisions, and rules have been observed" (Bundesrechnungshof, 2016).

So, except for the direct correspondence of objective problems to the requirements of statutory instruments in force, budget and contractual terms, some SAIs also concentrate on a more detailed study in compliance auditing management decisions and transparency of the existing system.

The analysis of the terminology used shows that the concept of "regularity audit" is virtually put in the "compliance audit" because it includes the definition of

statutory compliance in the executing some operations, programs, etc. Regularity audit had earlier spread in the practice of the SAIs overseas, such as Hungary, India, Netherlands, Pakistan, Slovenia, Tanzania, Uganda and so on. Thus, regularity audit is a constituent of compliance audit and one of its tasks, resulting in inappropriate singling out the regularity audit as the separate form of public audit.

When new 3rd level ISSAI standards were adopted in 2013, in particular, ISSAI 400 "Fundamental Principles of Compliance Auditing", in October 28-29, 2014, under the National Audit Office of Lithuania guidance in Vilnius (Lithuania) the training seminar on "Compliance Audit: Use of the Compliance Audit Guidelines (ISSAI 400 and 4000-4999) and Best Practice" was held. The seminar took place as a part of EUROSAI operational plans "Professionals Standards" and "Knowledge Sharing" involving the representatives of the INTOSAI Sub-Committee on Compliance Audit aimed at discussing the key problems of ISSAI standards implementation in compliance auditing and finding their solutions.

Key features of public audit, which were provided by the workshop participants having a positive experience of implementing the public compliance auditing in their SAIs' activities, are as follows.

Under the regulatory compliance, the regulatory environment is supposed, to which public authorities and government officials must correspond in order to obtain public confidence.

Two compliance concepts are proposed to use:
(1) regularity – activities, transactions and data reflected in the financial reports of the audited entity comply with the legislation, statutory instruments and instructional materials issued in accordance with the requirements of legislation in force and authorized in a proper manner, other agreements including budget laws;
(2) propriety – includes general concepts both of due financial management in the public sector and company officials' behaviour.

The concept of propriety is more difficult to apply since it is based only on the auditor's judgment and bears the mark of subjectivity. For example, the definition of the relevant correctness criteria is a challenging task as these criteria may be less formal and require considering public expectations regarding the public officials' actions and behaviour.

In foreign countries, when applying the propriety concept it is often assumed that the public auditor must find not only what is written in the laws, regulations and official records of Parliament and government. Special attention is paid to the ethical issues, despite the fact that legal is not always moral and vice versa. Simultaneous compliance with the requirements of legitimacy and ethics is the basis for good governance.

Some countries conduct a compliance auditing (CA) on a regular basis, including it in work agendas for a year, others – 1-2 times a year on the basis of an important study object. Thus, the Bulgarian National Audit Office conducts dozens of CAs over the year exploring the financial management of individual government agencies and organizations, agencies, offices, departments, etc. At the same time, the National Audit Office of Finland performs two to four public compliance audits annually, choosing the significant subjects for study such as: funding for organizations and foundations to promote health and social welfare; central government transfers to local government for expenditure on basic social assistance; the payment of state matching funds to universities; energy subsidies; compensations; budget procedures, etc.

This difference in approaches affects the SAI's planning process; however, it should not significantly impact the procedure of a compliance auditing.

Another feature of the compliance auditing organization and performance is the combination with other forms of public audit – financial auditing (FA) and performance auditing (PA). Depending on the goals and tasks, different approaches to conduct compliance auditing are identified. Sometimes CA is an independent task, but often it can act as a separate task when conducting comprehensive public auditing. In such cases, the combination of tasks and strategies of various public audits organizing and conducting is also of particular interest. Various combinations of both financial auditing and compliance auditing tasks described by the seminar attendees are summarized in Table 1.

Table 1
Combinations of the public financial auditing and the public compliance auditing

Parameters	Options for combinations of the Financial Auditing and the Compliance Auditing		
	full integration	loose combination	segregation
Basic methodology	same basic methodology – an assertion based, test of internal control, substantive testing	FA based on ISSAI 1000, different methodology for CA	FA based on ISSAI 1000, CA based on specific subject matters according to ISSAI 4000 series
Planning and execution	full integration	loose integration	no integration
Assurance	positive assurance on the financial statement and positive assurance on CA	positive assurance on the financial statement, and negative assurance on CA	positive assurance on the financial statement, positive assurance on each individual CA
Countries that apply the approach	Estonia	Latvia, Canada, USA	Norway

The combination of the compliance auditing with the performance auditing does not cause, in practice, special problems, because these two forms of the audit have nearly always associated issues.

It should be noted that in different forms of public audit, critical attention is paid to the relationship between public auditors and the audited entity. Establishing a mutual understanding contributes to the audit's quality and efficiency, as well as to the increase in public confidence towards the audit results stated in the reports.

Thus, the report on the results of compliance auditing is important because it has to send the fullest, verifiable and understandable information to interested users. There are differences in the reports' presentation based on the CA results, as well as in the language of their submission. In effect, there are two basic report formats:
(1) the extended presentation of results with appropriate criteria-based evaluation resulting in its long form;
(2) an auditor's regular, often short, statement.

In many instances, SAIs publish the reports in both formats on their public resources. At this, the extended (long) report is generally presented in a state language, and the short one – in English.

In light of this, the suggestions of the National Audit Office of Estonia regarding the preparation of a qualitative report on the compliance auditing results are useful. So, to shorten the report preparation time, a template can be developed. In order for a public auditor's idea about the subject for an audit represented in summary to be clear, it must be highlighted what they were doing, for what purpose and what is found. The quality of data reporting that may be of interest to both Parliament and the public also plays an important role. To improve the report's informative value, all the important information about the deviations or recommendations should be structured and represented by tables or graphs, etc.

To enhance the clarity of reports and conclusions based on the compliance auditing results and to improve their effectiveness, the Supreme Audit Office of Poland recommends: to write the report in simple language that conveys the meaning of work conducted clearly and accurately, makes it interesting for users; strongly emphasize the importance of the recommendations given; be fair and impartial while passing an opinion; describe only important issues which are of significance for the conclusion; provide convincing and well-founded conclusions which must contain specific and realistic recommendations to implement (Sułkowska, 2014).

In addition, the seminar covered the specific SAIs case studies of Estonia, Finland, Hungary, Latvia, Lithuania, and Turkey, the findings of which have enriched the experience of all parties concerned. Thus, the best experience of SAIs in different countries regarding public compliance auditing was the basis for the ISSAI standards.

3. Analysis of the ISSAI standards key requirements as to the public compliance auditing

Compliance auditing favours transparency by providing reliable information about how public resource management is effected and about the observance of citizens' rights according to legislative requirements. It also contributes to responsibility for all the deviations and irregularities found in the government bodies activities, because in accordance with any findings the corrective measures are taken and those found responsible are made accountable. Good governance support takes place by identifying weaknesses and deviations from laws, rules, and regulations with propriety assessment in cases when laws and other statutory instruments are not enough adequate. In addition, CA reduces the risk of fraud and corruption that hamper transparency, accountability, and good governance.

Taking into account the latest changes, the ISSAI standards on the 3rd and 4th levels contain requirements for compliance auditing: ISSAI 100 "Fundamental Principles of Public-Sector Auditing", ISSAI 400 "Fundamental Principles of Compliance Auditing", and ISSAI 4000 "Compliance Audit Standard".

Key requirements for CA are contained in ISSAI 400, which is based on ISSAI 100 and concretizes it, in particular, regarding the purpose and justification for the ISSAI standards use while conducting the compliance audit, CA fundamentals and different ways of its implementation, as well as elements and principles.

To conclude, ISSAI 300 gives the following CA definition:

"Compliance auditing is the independent assessment of whether a given subject matter is in compliance with applicable authorities identified as criteria. Compliance audits are carried out by assessing whether activities, financial transactions and information comply, in all material respects, with the authorities which govern the audited entity" (ISSAI 300, 2013).

The ISSAI standards provide a wide range of principles, standards, and guidelines to study the subject of the audit, applying certain methods and report formats. CA guidelines (ISSAI 4000-4999), as noted above, are developed in line with the best practices, which allows them to be recommended to other SAIs. At the same time, there can be conditions which make impossible their use either in whole or in part. For example, this may occur in case of lack of basic administrative arrangements or if the legislation does not specify certain prerequisites for the CA conduct. In such cases, SAIs are free to determine the manner and the extent of the relevant ISSAI standards application.

The purpose of CA is to assess how the activities of public sector subjects correspond to their powers, which also includes reporting as to the audited item's

compliance level to the criteria specified. As noted above, CA can be associated with the definitions of regularity or propriety. Despite the fact that the main focus of CA is the definition of regularity, propriety, however, is of great importance in the context of public expectations as to financial management and the officials' activities in the public sector.

The direction of establishing the propriety by public auditors as a result of CA depends on the SAIs' powers. For example, in countries such as Belgium, France, and Italy, SAI is authorized for jurisdictional function. For these SAIs, CA performance will have the features that make additional requirements for auditors, in particular, the judicial role. As SAIs with jurisdictional function are eligible to hold court and their decisions have greater consequences, the additional requirements regarding the auditing organization are laid down to them. As a result of the CA, such SAIs can exercise judgments and apply sanctions to the persons responsible for the public funds and other assets management. So, it may be suggested about the need to bring to responsibility for the lost revenues, illegal or inefficient public funds use, to impose sanctions and so on. Some SAIs are required to pass the facts elicited to the judicial branch. Such powers, of course, will affect the public compliance auditing preparation and conduct, including strategy and plan development, final documents regulation, etc.

In addition, some SAIs, depending on their powers, can hold CA in such cases:
(1) to determine the legality of certain activities, when there are suspicions of fraud and corruption;
(2) to determine the number of persons who can be brought to responsibility, in particular, a criminal one, due to the discrepancy in their activities with the current legislative requirements;
(3) to assess the reliability and completeness of data offered to the Parliament by the government, etc.

The authority designated will influence the determining objectives and strategies, planning and auditing procedures.

General requirements to a public compliance auditing conduct are set out in the ISSAI 4000 and relate to the following: objectivity and ethics, audit risk, the risk of fraud, selection of areas significant for the intended user(s), professional judgment and scepticism, quality control, documentation and communication.

An important feature of the public compliance auditing is that according to the results, the auditor may express a reasonable or limited assurance. To formulate a reasonable assurance, the public auditors should perform advanced procedures with the aim to collect more evidence.

The main stages of public compliance auditing are stated in the algorithm of conducting public compliance auditing (Figure 1), which was developed based on the ISSAI's essence analysis.

4. Prospects for the public compliance auditing implementation in the Ukrainian practice

First of all, it should be noted that the public compliance auditing implementation is directly related to the development of public audit in Ukraine. In this context, an important factor is that the system of public finance control is in the process of harmonization with international standards and is directly dependent on the new institutions' formation, supporting the transition toward a market economy.

The remoteness of global processes in the area of control, which objectively existed prior to Ukraine's independence proclamation in 1991, has not allowed to adequately perceive the leading foreign experts' achievements and to benefit from the experience of other countries in this area. The consequence was that the legislative practice outstripped Ukrainian theoretical developments in the field of control and audit.

Research activities of the last decade are based on the usual for Ukraine practice of strong government control, exaggerating its role and capabilities in providing independent and public control (Bardash, 2010; Sukhareva and Fedchenko, 2013; Mnichatall, 2015).

This is also evidenced by both the legal regulations in this area and the results of the Accounting Chamber' control capacity analysis, as well as its comparison with the government supervisory authorities, which have considerable advantages in terms of staff number, the territorial coverage of the Ukrainian regions and the number of the control activities (Khmelkov, 2016).

It should be noted that in the Ukrainian publications, the compliance auditing, unlike the financial auditing and the performance auditing, remains underexplored, which causes its character misunderstanding and sometimes – a mix of tasks of public audit's different forms. For example, public compliance auditing is the same as the public financial auditing (Dykan, 2011).

The analysis of both scientific publications (Bardash and Osadcha, 2012; Mnichatall, 2015; Nevidomyi, 2016; Pikhotskiy, 2016) and the current situation in Ukraine in terms of public finance control system transformation enabled to define the main groups of problems (Table 2).

The development of public audit institution will contribute to the development of its individual forms, in particular, the public compliance auditing. To accelerate the ISSAI standards implementation in the Accounting Chamber's practice, it is necessary to use the best practices of the SAIs that have experience in this field. Such an approach will also allow avoiding common errors and ensuring the compliance auditing performance. It should be noted that usually, the elements of compliance auditing are present in almost every control and expert-analytical event of the Accounting Chamber of Ukraine, but separately, as a form of public auditing, the compliance auditing in

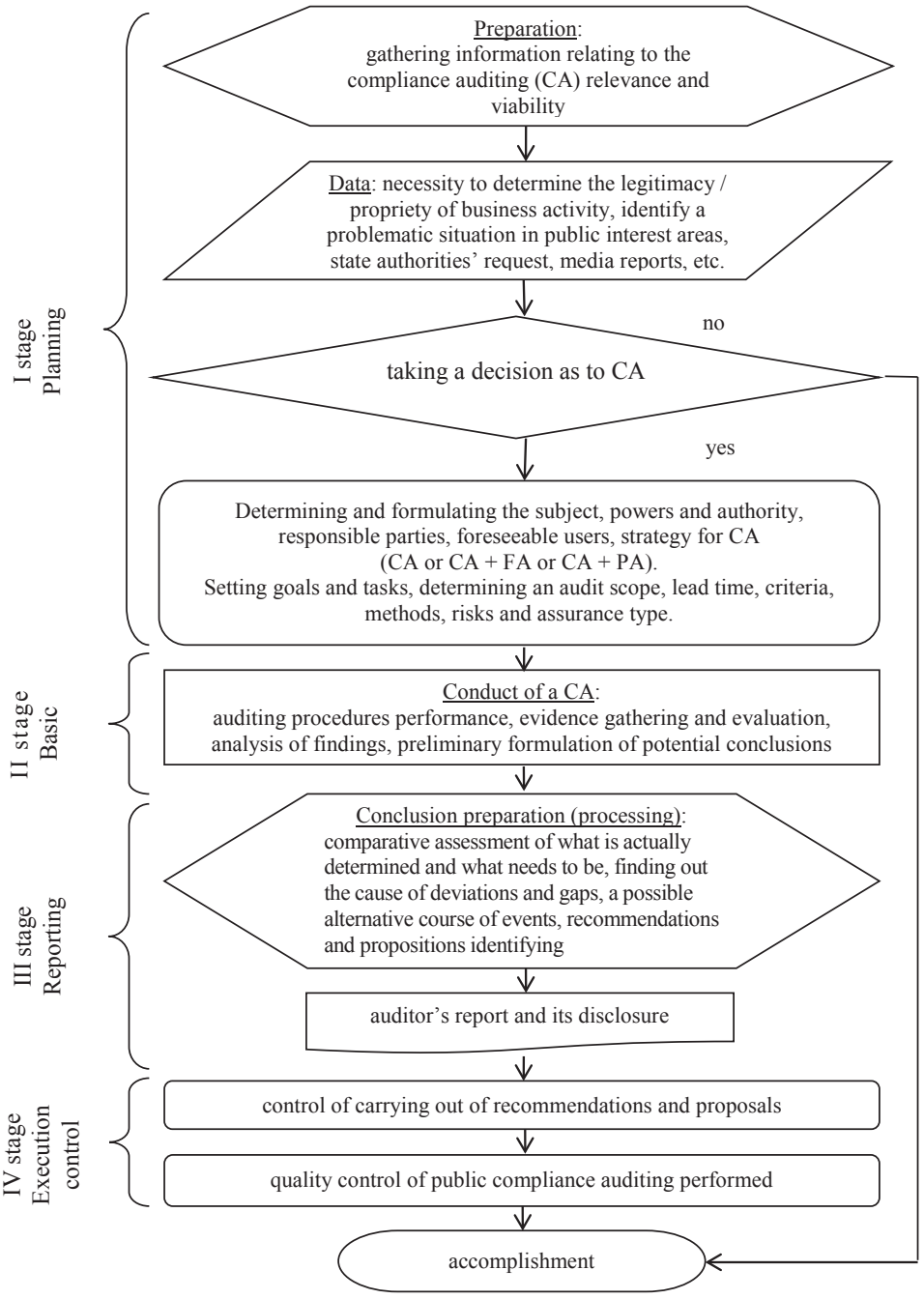

Figure 1. The algorithm of public compliance auditing conduct under the ISSAI requirements

Ukraine has still not been considered. For clarity, let us analyse some of the Accounting Chamber of Ukraine's recent reports on the results of audits and other control activities that are published on the official Chamber's website (ACU, 2017).

Thus, the analysis of various control measures key parameters proves that almost every one of them contains the compliance auditing elements. There is a clear connection between the objective, auditing criteria and methodological techniques of data collection, in which there are elements of regularity and propriety definitions. The elements of compliance auditing appear when combining with the financial audit and the performance audit (as provided for in the ISSAI standards). Table 3 presents some reports extracts to confirm this thesis.

The report analysis presented by the Accounting Chamber of Ukraine proves that in fact, the Chamber carries out public compliance audit but it does not call them so. For example, while describing the audit criteria (control measure) the parameter "legality" is emphasized. Information on this parameter is shown in Table 3.

Table 2

Key problems in public audit in Ukraine at the present stage

Problems nature	Problems essence
Conceptual problems	the lack of conventional concept used; the need to formulate the public audit principles in order to take them as a basis for public auditing development; the need to develop a sound scientific classification of the public audit's types and forms; the need to define roles and tasks, subject and classification of public audited items; the need to develop criteria of the efficiency of the public audit with regard to its essence and functions
Methodological problems	the need to implement the ISSAI standards; the constrained use of specific advanced methods and procedures of public audit, as well as the methods of audit governance; the lack of sound approaches to defining the importance and risks in public audit; the need to develop and implement an effective system of public audit quality control (both internal and external quality control)
Organizational and legal problems	the lack of theory, which should be the basis for the public finance control transformation and development; the status of the Accounting Chamber as the Supreme Audit Institution is not enshrined in the Constitution of Ukraine; auditing of local budgets and other public resources is not included in the Accounting Chamber's powers; the Accounting Chamber's organizational structure underdevelopment; the lack of development of both internal and external public audit coordination model; underestimation of the engaging independent auditors to conduct public audits

Table 3

Key parameters of an audit in the Accounting Chamber of Ukraine's reports

Name of the control measure	Goal	Legitimacy criteria	Data-collection methods
Audit of the tasks and actions implementation designed by the National target program "Drinking Water in Ukraine" for 2011–2020	establishing the real situation as to planning and use of funds of the State budget of Ukraine, prescribed in 2012–2015 to accomplish tasks of the National target program "Drinking Water in Ukraine" for 2011–2020	correspondence of management decisions, departmental normative legal acts and executive directives of the audited items with the applicable law principles	analysis of statutory instruments, policy acts and executive directives related to the audited subject
Analysis of the executing powers by the executive bodies as to the taxpayers' registration completeness	determining the actual implementing by the executive authorities their powers regarding the taxpayers' registration completeness – legal entities and their separate subdivisions, and individuals	compliance of managerial decisions and regulatory documents adopted by executive bodies to the requirements of current legislation in terms of taxpayers registration	collection and processing of normative-legal acts, administrative, regulatory and other documents regulating the taxpayers' registration procedure, as well as ensuring control over the taxpayers' registration completeness
Audit of the efficient use of state budget funds allocated to the Ministry of Health of Ukraine to give the Ukrainians medical treatment abroad	assessing the legality, timeliness, and completeness of management decision-making	conformity of managerial decisions, executive directives of audited items regarding the planning and use of budget funds with the current legislation	analysis of normative and legal, administrative, executive acts and documents regulating organizational and financial support of medical treatment for the Ukrainians abroad
Analysis of using the International Coordinated Audit of the Chornobyl Shelter Fund ("Ukryttia" Chornobyl Fund) recommendations	determining the actual situation as to implementing the projects (programs) associated with the taking ChNPP out of service and with the transforming the Shelter into an environmentally safe system; evaluating the legal and organizational support in executing the International Coordinated Audit of the Chernobyl Shelter Fund's recommendations	completeness, timeliness, and consistency of implementing the recommendations, the extent to which the results obtained thanks to executing the recommendations correspond to the target	monitoring of legal, regulatory and other documents regulating the use of international technical assistance and transfers from the State Budget of Ukraine aimed at implementing the measures for the taking ChNPP out of service and for transforming the Shelter into an environmentally safe system
Audit of financial and economic activities of the State territorial-sectoral association "South-West railway"	evaluating the compliance with laws and decisions of authorized body of South-West railway's property management, as well as of the regulatory body of the railway transport	compliance of managerial decisions, regulatory and departmental normative legal acts of the audited items to the active legislation provisions, compliance with the legislation requirements, acts and decisions	analysis of normative-legal, administrative acts related to the subject and the objects of the audit

When comparing the information presented with the international episodes, it is possible to draw a conclusion about the full integration of the public compliance auditing with the public financial auditing in the Accounting Chamber of Ukraine's practice (Table 1). In addition, there are also elements of assessing the accuracy when performing compliance auditing (for example, determining the compliance of managerial decisions to the criteria specified).

Thus, public compliance auditing is actually conducted by the Accounting Chamber; however, it requires to be allocated as a separate form of the public audit as required by the ISSAI standards. As noted above, the latest version of the Law of Ukraine "On the Accounting Chamber" does not contain the concepts of compliance auditing. Virtually the only Ukrainian regulation, where compliance auditing is mentioned separately from other forms, is Internal Audit Standards, developed by the Ministry of Finance of Ukraine with the aim to use them in the ministries and other central executive bodies, their territorial bodies and budget institutions, etc. (MFU, 2011).

Thus, Section III, "Standards of internal audit activities", Chapter 1, "Directions of an internal audit", item 1.1 specify: "The scope of internal audit covers the following activities: ...assessment of the institution's activity in terms of compliance with the legislation, plans, procedures, contracts regarding the asset conservation, information and state property management (compliance auditing" (MFU, 2011). The Internal Audit Standards do not specify the compliance auditing procedures as well.

Regulatory documents of the Accounting Chamber do not stipulate the public compliance auditing as a separate form of the public audit. Thus, the methodology of the CA is not designed, which disallows for full use of this form of the public auditing.

5. Proposals to ensure public compliance auditing implementation in Ukraine

This study allows formulating the recommendations for further public compliance auditing implementation in Ukraine, which are as follows.

(1) Conceptual framework (definitions) used in public audit requires to be developed and specified. Further investigation of public audit theory and methodology, in particular, the public compliance audit, as well as the best practices studying will achieve the conventionality of concepts applied that should be the basis for the relevant normative-legal acts. The terminology solidarity is essential to improve the coordination of internal and external public audit subsystems, as well as their interaction with other stakeholders.

(2) Supplementing the list of the Accounting Chamber of Ukraine's control measures with the public compliance auditing would be the next step. As it has been proven in the study, the public compliance auditing is a distinct form of the public audit with its own specifics of the organization and conduct. In addition, the specified adjustment will allow bringing the actual legislation into compliance with the ISSAI standards.

(3) To fully include public compliance audits to the Supreme Audit Institution's work requires defining the concept of compliance auditing. According to the current practice, compliance auditing is conducted on an ongoing basis including the plans for the year or based on choosing the essential subject for study (multiple audits). In our opinion, it is advisable to flexibly combine these two approaches in a flexible manner. Taking into account the Accounting Chamber of Ukraine's current practice, it seems rational to define a list of public audit items, which requires a regulatory basis for periodic compliance auditing (for example, separate ministries and departments). Along with this, resources to carry out compliance auditing on individual topical issues must be included into the Chamber's annual work.

It is worthy of note that while planning the Accounting Chamber of Ukraine's activities the communication with The State Audit Service of Ukraine (the main monitoring body of the government) regarding the internal compliance auditing execution plan will play a critical part. In this case, it is possible to avoid undesirable duplication of internal and external audit functions.

(4) When the appropriate amendments in the law are introduced the developing separate Standard (or Methodical recommendations) on carrying out the public compliance audit by the Accounting Chamber of Ukraine will be a logical step. The ISSAI standards requirements must be the basis for this internal regulatory document. It is also advisable to use the best practices of other Supreme Audit Institutions and to attract the scientists making investigations in this area.

(5) Full implementation of the public compliance auditing is only possible with trained professionals. On that basis, training and professional development of public auditors as to the public compliance audits methodology and organization are extremely important.

(6) Sharing experience with Supreme Audit Institutions of foreign countries concerning the organization and conduct of public compliance audits in this context will help to implement compliance auditing.

(7) The allocation of internal public compliance auditing in The State Audit Service of Ukraine activities will allow normalizing the control subsystems of both external and internal public audits that will ensure their effectiveness and efficiency. Creating a database for sharing results and coordination in the planning and conduct of internal and external public compliance audits should be an important step in this direction. Modern technologies allow ensuring the proper functioning of such a database in compliance with the limited access requirements and information confidentiality.

6. Future research opportunities

In sum, we note that the public compliance auditing is a promising direction of research in the public finances control area. At the same time, the results presented in the study can be the basis for further theoretical and practical developments, and taking the recommendations proposed into account will speed up the process of the ISSAI standards implementation, improve the public audits quality and efficiency to ensure public confidence towards the Supreme Audit Institution in Ukraine.

7. Discussion and conclusion

The purpose of this study was to determine the prospects of implementing the public compliance audit in Ukraine according to the ISSAI standards requirements. For this purpose, the prerequisites for the development of public compliance auditing as one of the forms of the public audit were investigated based on the best international practice in this area.

As a result, the following conclusions were drawn.

First, the compliance auditing is known since ancient times and is widely used in the SAIs' practice, but it sometimes has other names (regulatory, regularity). However, its main essential characteristics are preserved (essence, goal, realization conditions, presentation of results, etc.). In view of this, separating the regularity auditing as a certain form of public audit seems to be inappropriate.

Second, the longstanding applying the public audit by different SAIs confirmed the appropriateness of its carrying out as a separate form of the public audit that has highlighted the need to develop appropriate methodological support. The latter was confirmed by the professional community and implemented in the form of the 3rd and 4th level ISSAI standards. The standards were adopted by the INTOSAI Congress in December 2016 and now they require to be implemented by all INTOSAI-members.

Third, Ukraine goes through the transformation process of the public finance control system and is an active international institutions participant, which implies the ISSAI standards implementation. Dealing with theoretical, methodological, and organizational and legal problems will speed up reforms in the sphere of external independent control. With the development of the public audit institution, the development of individual forms, in particular, the public compliance auditing, will take place.

Fourth, the analysis of reports based on the Accounting Chamber of Ukraine's performance has proved that almost every control measure produced by the Chamber contains the compliance auditing elements. In this case, the proper legal basis for the CA as a separate form of the public audit has not yet been established and the relevant methodological developments are lacking.

Fifth, to accelerate the ISSAI standards implementation in the Accounting Chamber's practical activity, the specific recommendations are proposed, the implementation of which will contribute to reforming the control system in accordance with the international standards requirements and national needs for the improvement of public administration in Ukraine.

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INTERNATIONAL FRANCHISE AGREEMENT

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Abstract. *The purpose* of the article is to study the legal nature of the international franchise agreement, its types, essential conditions and peculiarities of its conclusion. *The subject* of the study is the international franchise agreement. *Research methodology*. The research is based on the use of general scientific and special-scientific methods and methods of scientific knowledge. The dialectical method allowed investigating the definition of the international franchise agreement and its essential conditions. The comparative legal method was used to compare doctrinal approaches to this issue. Interpretation of the content of international legal acts governing issues related to the conclusion of the international franchise agreement was realized with the help of the normative-dogmatic method. The system-structural method is used to study the international franchise agreement as a single whole (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 the conclusion of this contract, as well as the provisions that should be included in the content of the agreement. Methods of analysis and synthesis helped to study some parts of this agreement to formulate further conclusions. *Practical implication*. The analysed recommendations of scientists and lawyers, as well as the provisions of international regulations, can be used when concluding an international franchise contract. *Correlation/originality*. The scientific novelty of the work consists of an integrated approach to the study of theoretical and practical issues related to the international franchise agreement.

Key words: international franchising, international franchise agreement, franchise, essential conditions, international organizations, model contracts, general recommendations.

JEL Classification: F13, F16

1. Introduction

International franchising becomes very important under present-day conditions. Over the last decade, it has become a popular format for doing business in various sectors of the economy, and small and medium enterprises have been using it to expand their business for over 100 years. At present, a large number of successful companies create franchising companies in other countries. Franchising has been a driving force for economic development, one of the main channels for sale of goods and services in many states, and its prevalence in a wide variety of industries clearly demonstrates the high degree of its efficiency. The system of international franchising creates favourable conditions for companies to enter the domestic markets of other countries and stimulates the rapid development of entrepreneurial activity.

The research on the development of franchising as a form of international business was conducted by such native scientists as T. M. Hryhorenko, O. Ye. Kuzmin, A. M. Mahomedova, V. Ye. Sakharov, T. M. Tsyhankova, A. V. Tsyrat, I. M. Shkola. Among the foreign scientists, special attention to this issue paid by V. V. Bezbakh, K. M. Bielikova, V. A. Bielov, N. H. Vilkova, T. M. Hryhorenko, Zh. Deltei, I. S. Zykin, V. B. Korzun, P. Kotler, M. Mendelson, A. Panfilova T. V. Syniavska, D. P. Stryhunova, Ya. I. Funk.

In this scientific work, we will consider the definition of the international franchise agreement, as well as its types, clarify the legal nature of this contract and establish its essential conditions. In addition, we will study the international legal acts regulating this issue, the views of scientists and lawyers on the issue of regulation of the international franchise agreement, and analyse the main recommendations of lawyers for the conclusion of this agreement.

2. Statement of the baseline

Some scholars affirm that franchising originated in the Middle Ages (Nykoliuk, 2009), however, it is well-known that the first franchise of the model which is currently in use appeared at the beginning of the 20th century. This format of this franchise was developed by Singer Sewing Machine Company in the USA, which established a network of servicing for its sewing machines.

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In the 1950s, the interest in franchising was growing significantly; its concept was taken over by an increasing number of enterprises in various sectors of the economy. In 1960, the International Franchising Association (IFA) was established in Washington (USA) to protect and promote the interests of the franchising industry. In 1972, the European Franchise Federation (EFF) was founded to regulate issues related to franchising in Europe. In 1990, this Federation made the European Code of Ethics for Franchising, on which the regulation of franchising relations in each European state is based.

In the XXI century, we are witnessing a further increase in the number of franchise business owners who are looking for new territories and opportunities to promote their networks. The access to international markets allows the franchisor to set up their businesses in other countries. Such a model of entrepreneurial activity helps to establish relations between states, as well as contributes to the development of the economy. Therefore, there is a rapid growth of international franchising not only in Europe but also in CIS countries.

International franchising has a number of significant advantages such as: 1) an exploitation of local management personnel may help to overcome the problem of foreign language and culture; 2) on account of impossibility or high value of proper control at a distance, business supervision is entrusted to a local specialist; 3) the necessary legal procedures are implemented by local lawyers, what allows the lawful sale of goods in the target country without any liability under its legislation; 4) the possibility of avoiding laws of certain countries which prohibit or control the income of foreign direct investment; 5) the ability to overcome political difficulties, such as, for example, the possibility of expropriation of foreign direct investment. The franchisee, as a rule, is a resident of the target country, and therefore, the risk of such a problem is significantly reduced. In any case, even if the property is expropriated, the franchisee will suffer losses, not the franchisor; 6) one of the biggest advantages of international franchising is the possibility of avoiding tariff imposts, which, in spite of a large number of international agreements, still hamper the development of the world trade (Warren Pengilley).

The essence of international franchising is that the franchisor (the franchise owner) gives the franchisee (the franchise buyer) the right to represent its own brand on the international market. In this, the franchisee can use the trademark, as well as know-how, technology and business model as a whole. All rights and obligations of the parties are registered in the relevant contract – the international franchise agreement.

As evidenced by the foregoing, the question of legal regulation of this agreement becomes more and more relevant because, despite the fact that it is used in more than 80 countries of the world, the unification of this institute has never happened in the international legal scene. As it was correctly noted in the scientific work by H. Braun, "... only since World War II and increasingly in the past ten years has franchising achieved recognition as a distinct method of marketing ... [but] ... there is no generally accepted definition of franchising in court decisions, regulation or legislation. Further, any definition would fail to include the many functions inherent in the system, as well as its potential for abuse..." (Brown, 1972).

Consequently, as it was already mentioned, at present there is no generally accepted definition of an international franchise agreement. From the standpoint of private law, a franchise agreement is international if it is concerned with law and order of two or more states, that is, in cases when the parties to the contract – the franchisor and the franchisee – have their principal places of business (commercial enterprises) in territories of different countries. A franchise agreement, including an international one, is a kind of commercial agreement since its parties are legal entities engaged in entrepreneurial activity (Stryhunova, 2014).

In the specialized literature, one can find the following definition of the international franchise agreement:

1) it is a special type of license agreement on the transfer of intellectual property rights. In accordance with this agreement, the licensor (franchisor) issues a license to a foreign licensee (franchisee) to conduct certain business operations under the name of the licensor. Under the conditions of a franchise agreement, licenses for the use of such subjects of industrial property as methods of entrepreneurial activity (know-how), trademarks (service marks) of the franchisor are often transferred to the franchisee, as well as technical and commercial assistance is provided. A franchise license is often issued in exchange for direct (royalty) or indirect financial compensation (counter service, etc.), and usually provides for the franchisor to receive remuneration during the term of the contract. As a rule, under a franchise contract, the licensor has the right to exercise strict control over the franchisee's authorized activity during the term of the license (Mezhdunarodnye franchaizynhovye kontrakty).

2) It also defined as a contract whereby the franchisor grants the franchisee (based in another country), in exchange for direct or indirect financial compensation, the right to exploit a package of industrial or intellectual property rights relating mainly to know-how and commercial symbols, and to receive continuing commercial or technical assistance for the duration of the contract. International franchise agreements may regard distribution of goods or supply of services. In distribution franchise agreements, the franchisee is granted the right to market the products manufactured or supplied by the franchisor or by a supplier designated by the franchisor, under the franchisor's trademark according to the franchisor's commercial know-how and with its commercial assistance. In service franchise

agreements, the franchisee is granted the right to provide services (e.g. restaurants, hotels etc.) developed by the franchisor, under the franchisor's trademark according to the franchisor's commercial know-how and with its commercial assistance (Llamazares).

In addition, the following types of international franchise agreements are also distinguished depending on the type of activity:

• manufacturing franchise agreement: according to this agreement know-how in the form of manufacturing technique and technical experience of the franchisor is transferred. A franchisee can make products of the same quality and characteristic as the franchisor in his production area. The agreement allows the franchisee to put on a trademark owned by the franchisor on the manufactured goods, as well as to sell the manufactured products;

• business-format franchise agreement: the franchisee receives not only the right to sell goods/services and the methodology of sales or services provision (as it is provided for product distribution franchising) but also the whole business concept starting from the sales outlet design, staff uniform, customer service, personnel training to recommendations on promotion and marketing);

• mixed franchise agreement is based on a combination of the main types of franchise agreements: product, service and manufacturing. Under this contract, the franchisor producers and the franchisee sells these goods through its franchise point and at the same time provides services related to the use of these products;

• product distribution franchise agreement – under this contract the franchisee has the right to sell the range of goods or to provide a list of services under the franchisor's trademark (Vydy franchaizynha).

The main sources of legal regulation of the international franchise agreement are a national law and so-called "lex mercatoria". National law applies to an international franchise agreement by virtue of the autonomy of will of the parties or by virtue of the law applicable in the absence of an agreement between the parties on applicable law. Lex mercatoria is an autonomous legal order, which is formed voluntarily by the parties involved in international economic relations and which exists independently of national legal systems. This set of rules is used as an alternative to the national law applicable in a particular case.

Such influential international organizations as the International Institute for the Unification of Private Law (UNIDROIT), the World Intellectual Property Organization (WIPO), the International Chamber of Commerce (ICC) have repeatedly tried to define the franchise agreement in general and the international franchise agreement in particular, as well as to establish common rules for its regulation.

Thus, in 2007, the UNIDROIT issued the 2nd edition of the Guide to International Master Franchise Agreements (UNIDROIT). It provides a comprehensive examination of the whole life of this type of arrangement, from the negotiation and drafting of the master franchise agreement and other associated agreements to the end of the relationship. It deals principally with the positions of the parties directly involved, i.e. the franchisor and the sub-franchisor but, in instances where it is considered to be of particular importance, the positions of others affected, such as sub-franchisees, are covered.

In 1994, the WIPO published the Franchising Guide (World Intellectual Property Organization). Paragraph 4 of this Handbook states that "from a legal standpoint, franchising relies on contract law and, therefore, does not necessarily require any special regulatory or legislative structure in order to function and develop. It is, therefore, appropriate to stress at the outset that no specific regulation of franchising has been or would be necessary for franchises to thrive in any economy. However, some governments have nevertheless chosen to adopt legislation to regulate franchising. Overregulation could, however, have the effect of discouraging investment in this area".

Nevertheless, Section V of the Guide is devoted to the typical terms of a franchise agreement, such as: rights and obligations of the franchisor and the franchisee, payment arrangements, compliance with quality control requirements; provisions on breach of contract; renewal of contract, etc., and Appendix II to the Guide provides an overview of the intellectual property rights typically included in franchise agreement.

In 2000, the ICC developed the Model Contract for International Franchising (The ICC Model International Franchise Contract, 2000, the publication of ICC № 557). It is the typical contract aimed at promoting goods, which contains uniform rules, recommended by the ICC to the participants in these legal relations. When creating a model contract, the drafters intended to foresee the fundamental rights and obligations of the parties and to avoid application of the national law of any country. The main reason for this contract is the lack of international unification of franchising and the necessity to appeal to domestic law, what would involve disadvantages, as the law of individual states does not take into account the needs and specifics of international trade, and its regulations vary considerably in individual countries. The rules agreed at the international level (first of all in the EU), mainly affect the antitrust aspects of the contract (for example, the effect of certain restrictive provisions on the exclusivity of the territory) and do not regulate the civil matters of the parties to the franchise agreement (Vylkova, 2002).

In 2011, the ICC Model International Franchise Contract № 557 was reviewed and completed to provide users with updated information on issues related to antitrust laws and regulations governing franchising relationships. The 2nd edition of the ICC Model Contract

(ICC Publication № 712 E) (International Chamber of Commerce) offers franchisors and franchisees flexible formulations of solutions that accurately meet business needs, for legal certainty and compliance general application practice. In order to ensure clarity and use facility, an explanatory comment has been added to the contract, which provides alternative drafting options and hints for identifying potential legal traps.

However, as indicates V. A. Bielov, typical or, in other words, model ICC Contracts can hardly be called the acts of international private unification in the literal sense of the word. Despite their name "typical", they are purely advisory, and the practice of their application is based solely on the professional authority of the developer. Since they are made not in relation to some particular cases of foreign trade operations, but in general, typical contracts have such content, which is called "balanced" and free from the conjuncture. Balance means an equal degree of concern for the interests of both parties, and freedom from the conjuncture is an assessment of these interests from the point of view of a competent, intelligent, fair and impartial observer. In this respect, they are similar to the acts of private unification.

At the same time, it is obvious that the texts of typical contracts cannot in any way become texts of specific contracts without at least minimal adaptation to the features of particular situations and conditions of these agreements. In other words, the norms contained in model contracts are not figured for general application, whatever it would be executed – directly or through the implementation of their provisions to national legislation. This is the main content difference between the ICC Model Contacts and the acts of private legal international unification (Belov, 2014).

The same opinion is followed by K. E. Zwisler. The main problem associated with the model franchise contract, according to the scientist, is its goal – an attempt to provide a single solution to all issues, although sometimes alternative provision is offered. It is designed to meet the needs of all franchise operations in all cases. However, the desire to work out a single solution for most of the issues that arise when concluding an international franchise agreement is not a realistic goal, as the author considers.

That decision may cause the model to be more of a problem than a blessing for new international franchisors and international franchise lawyers. Anyone who has got experience in this field knows that a good franchise agreement must reflect scores of business and legal decisions that make each franchise unique. Those lawyers who regularly advise international franchisors know that typical contracts are only an imperfect starting point when concluding franchise agreements for new clients. Dozens of hours of work are usually required to adapt these model contracts to the needs of each individual franchisor client (Carl E. Zwisler).

However, lawyers with many years of experience in this field have made general recommendations for the conclusion of an international franchise agreement, by which one should be guided. So let's consider some of them.

Consequently, the most important point of negotiation in international franchise agreements is the negotiation of the initial document, which is usually a Master Franchise Agreement. As it was already mentioned, this issue is comprehensively regulated by the Guide to International Master Franchise Arrangements (UNIDROIT). In accordance with Clause 1 of this Guide in master franchise agreements, the franchisor grants another person, the sub-franchisor, the right, which in most cases will be exclusive, to grant franchises to sub-franchisees within a certain territory (such as a country) and/or to open franchise outlets itself. The sub-franchisor, in other words, acts as a franchisor in the foreign country. The sub-franchisor pays the franchisor financial compensation for this right. This compensation often takes the form of an initial fee, which may take any one of a variety of different forms, and/or royalties constituting a percentage of the income the sub-franchisor receives from the sub-franchised outlets. In master franchise arrangements, essentially two agreements are involved: an international agreement between the franchisor and the sub-franchisor (the master franchise agreement), and a domestic franchise agreement between the sub-franchisor and each of the sub-franchisees (the sub-franchise agreement).

There are other types of initial international franchise agreements, depending on the way of organizing the trading network. Thus, international franchising can be done through: direct (unit) franchise; branch office or subsidiary; area representative; joint venture. Let's briefly consider each of them: a) direct (unit) franchising. This is a cooperation agreement between two legally independent parties (franchisor and franchisee) located in different countries. The franchisor provides the franchisee with the exclusive right to distribute its products or services in establishments, which are equivalently equipped and furnished, as well as the right to use intellectual property rights (commercial signs, brands, trademarks etc.). It also provides the know-how (Franchise Handbook), and the technical and commercial support for distribution to be carried out correctly. Since the expenses for international network supervision from a single centre could be very significant, it is recommended to conclude direct franchise agreements only if the target country is geographically, culturally, linguistically and/or legally similar to the franchisor's country; b) establishment of a branch office or a subsidiary in the target country. The advantage of this type of franchise is that the franchisor can directly control the franchisee in the target country. A disadvantage is the possibility of losing the benefits of the franchising concept by having to establish subsidiaries in a wide variety of foreign countries. As an alternative, a joint venture may be established between the franchisor and the local enterprise; c) a joint venture

agreement. The decision on a joint venture necessarily involves the physical presence of the franchisor in the target country. The main advantage of a joint venture is that the financial risk of the parties is shared. However, not infrequently equal representation on boards and equal shareholdings may lead to the emergence of corporate problems, as well as problems with the foreign investment if there are relevant restrictive laws in the target country. In addition, the joint venture involves very active and continuous participation of the franchisor in the project. Joint ventures and subsidiaries are the forms of international franchising commonly used by many fast food companies; d) under area representation agreement. Area representative acts as a mediator between the franchisor and the franchisee. Unlike the master franchisor, the area representative does not act on his own behalf, but on behalf of and for the benefit of the franchisor. The main responsibilities of the area representative are the selection of potential candidates for the franchisor, their evaluation and communication with them, as well as providing certain services to unit franchisees within its designated territory, such as training, site selection, grand opening assistance and on-going support. However, if the representative is not able to cope with the obligations imposed on him, the negative result of this will affect all departments in the territory committed to him. Another possible problem is the tendency that has arisen among regional representatives, to hire salaried managers for each separate branch (Warren Pengilley; Llamazares).

After the Master Franchise Agreement (or other primary agreement) has been negotiated, the basic rules for parties are established. Further agreements will depend upon the initial document. If it is not properly negotiated, there for sure will be considerable problems with the conclusion of following agreements. Thus, the primary contract is the most important because of its influence on subsequent agreements. It is necessary to take into account even the smallest details and to pay special attention to seemingly insignificant issues, because, as a rule, over their imperfect study there might be significant gaps in the content of the contract.

When concluding an international franchise agreement, the parties need to consider a number of issues that will help them to establish effective cooperation.

The main issues are the following: 1) what is being franchised? 2) what are the franchisor's obligations? 3) what are the franchisee's obligations? 4) what marks, including logos and patents, are involved and what is their legal status? 5) what is the length of the franchise? 6) what exclusivity provisions (product, territorial, or customer) are applicable? 7) What are to be the payment arrangements? Is payment:

• "up front", based upon a royalty, or a combination of both? • subject to minimum royalties? • to be made in the franchisor's currency, the franchisee's currency, or a third currency? • to be subject to agreed limitations on exchange rate variations? • to be made exclusive, inclusive or otherwise of certain taxes and the impost of the target country? • to be made monthly, quarterly, semi-annually, or at other designated times? 8) are there minimum performance provisions? 9) what competition restraints (during the agreement and after termination) will exist? 10) are there to be any "buy out" or "buy back" options? 11) what provisions apply relating to choice of law? (Warren Pengilley).

The key elements of the international franchise agreement vary for each of its parties. Thus, for franchisor they are as follows: a) the licensing of know-how embodied in operational manuals and continuously updated, with a training support system; b) the licensing of trademarks and symbols; c) the provision of assistance regarding distribution and management.

For a franchisee: a) the franchisor's exercise of reasonable quality controls over the franchisee to protect its intellectual property rights; b) the payment of initial and ongoing fees in exchange for the right to use these intangible assets; c) the participation in training courses organized by the franchisor; d) the use of franchisor's trademarks and symbols; e) the strict compliance with the franchisor's commercial standards; f) the information given to the franchisor concerning any difficulty which may appear or improvements which may seem suitable.

For both parties: a system to resolve disputes, including the service of notice of defaults and opportunities to cure (Llamazares).

Consequently, based on the aforesaid, we can conclude that the essential conditions of the international franchise agreement are: 1) know-how, which includes any confidential, valuable information that is the property of the firm, experience and methods of work of the franchisor, which enable the franchisee to repeat his success. It also includes the commercial and technical support of the franchisor and trainings he organizes for the franchisee. In exchange, the franchisee obliges not to violate the franchisor's intellectual property rights and to take all possible measures to protect confidential data; 2) commercial name, trademarks and patents. Recognition of customers and their confidence in products and services are usually associated with a trademark, which is one of the key elements of the success of the franchise network. Franchisee agrees that the franchisor is entitled to all intellectual property rights, and the franchisor, in turn, has the right to control the quality of the goods (services) produced (provided) by the franchisee; 3) products and territory. A clear definition of products and distribution areas are very important for achieving quality standards and for providing the franchisee with the ability to maintain a stock of goods in order to meet the needs of customers and comply with sales or sales requirements in an exclusive area where it is a separate and independent entity; 4) payment of fees and royalties. The parties must determine precisely the method and time of

payment, taking into account the fact that there are many options for calculating royalties. Non-payment of royalties may be considered as a violation of the contract and lead to the emergence of the right to terminate the contract; 5) the term of validity and renew of the contract. The parties may conclude a contract for a definite or indefinite period. One should carefully consider the conditions, under which the contract may be prolonged, renewed or terminated, as well as the consequences of such actions.

3. Conclusion

So, as a summary, it should be noted that, because of significant development of franchising in the international arena, the issue of regulation of an international franchise agreement is becoming increasingly relevant. At present, there is no standardized definition of the international franchise agreement, as well as a legal framework for its regulation, therefore, national law and the norms of the so-called "lex mercatoria" are responsible for its legal adjustment.

Experienced international lawyers, as well as by such well-known and authoritative organizations as UNIDROIT, WIPO, ICC have made attempts to define the international franchise agreement and to settle this institution. The ICC Model International Franchise Contract, which was made by ICC members and is currently widely used in international practice, offers franchisors and franchisees flexible formulations of solutions that precisely meet business needs. However, many scholars believe that the norms contained in model contracts are not designed for a common, uniform application without at least minimal adaptation to the features of particular situations and conditions of these agreements.

Therefore, specialists in the field of international franchising have developed general recommendations that could be used for the conclusion of this agreement. Among other things, they provide pieces of advice concerning the determination of the legal nature of the franchise agreement, the key points that are worth to be noticed, the essential conditions that must be foreseen, and the ways to avoid possible legal traps. When negotiating on the conclusion of an international franchise agreement, it is proposed to involve a specialist who has a long experience in this field and who will be able to choose the type of contract that meets all the requirements of the client and to adapt the provisions of the future agreement to its needs.

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DOCTRINAL CHARACTERISTIC OF PUBLIC PROCUREMENT OF MEDICINES AS A FUNDAMENTAL ELEMENT OF STATE FINANCIAL GUARANTEES FOR THE PHARMACEUTICAL SPHERE

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Abstract. *The aim of the article* is to study theoretical, methodological, and doctrinal approaches to public procurement of medicines and on this basis to determine ways to improve domestic legislation in this sphere. *The subject of the study* is public procurement of medicines. *Methodology.* The study is based on general scientific and special-scientific methods and techniques of scientific knowledge. The historical and legal method enabled to determine the preconditions for public procurement of medicines as a fundamental element of state financial guarantees for the pharmaceutical sphere in Ukraine and in the world, as well as the development of scientific and theoretical views on the nature, problems, and methods of public procurement of medications. The comparative legal method enabled to compare doctrinal approaches to public procurement of medicinal products. The system-structural method contributed to the consideration of public procurement of medications as a fundamental institutional and functional element of state financial guarantees for the pharmaceutical sector. The methods of grouping and classifying were the basis for the author's approach to public procurement of medicines for the most important and practically significant criteria. The *technical legal method* enabled to interrogate the state of affairs in the statutory and legal regulation of the national system of public procurement of medications, to identify its disadvantages, gaps, contradictions and miscalculations, as well as to develop recommendations aimed at their elimination. *The results of the study* revealed that public procurement of medicines should be considered as an activity of a public administration or specialized agencies authorized by it, aimed at purchasing medicinal products by the procurer funded from taxpayer's money and preserving the health of citizens via a transparent control by the state (via the Prozoro system). *Practical implications.* In the study: first, the key aspects of the genesis of public procurement of medicines are outlined; second, scientific approaches to their characteristics, available in the special literature, are analysed and compared; third, the author's original perspective concerning legislative regulation and consolidation in the current legal regulations is substantiated. *Relevance/originality.* The original author's approach to the doctrinal principles of public procurement of medications is the basis for developing the most promising areas of improvement of domestic legislation in this sphere.

Key words: medicines, financing, pharmaceutical industry, tenders, state budget.

JEL Classification: I13, H61

1. Introduction

In modern circulation of medicines and pharmaceutical services for the population of Ukraine, one of the most important problems is the efficient use of state financial resources to provide health care institutions with medicinal products and medical devices fully. State regulation of health care includes the public procurement system. Public procurements are a promising and important macroeconomic regulator forming a fully-fledged competitive environment in health services, and implementing stabilization policy in this sphere (Dolinovskyi).

However, under strict financial constraints, a new qualitative medical provision for the population is impossible without the efficient use of resources aimed at public procurement of medicines, medical equipment and modern conditions for medical institutions. First, the question arises about the timely provision of patients with the necessary medicines that enter the Ukrainian market through the appropriate public procurement procedure. In Ukraine, the state of affairs in public procurement of medicines is of concern to not only representatives of law enforcement bodies, business organizations and the Ukrainian public, but

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also representatives of international organizations and funds (Dolinovskyi).

The improvement of the pharmaceutical industry in the area of development and implementation of the most effective and safe medications is a priority for many leading countries of the world and the most famous pharmacological companies. This is because of the social significance of the products of the industry, changes in the demographic situation in all countries of the world due to the aging of the population, increase in the incidence among people, especially the elderly. According to the UN, in countries of the Organization for Economic Cooperation and Development (OECD), which includes 34 countries (mainly from Europe and North America), the population aged 65 and over is more than 17% of the total, and by 2019, according to the forecast, will increase by 20%. The share of the young and able-bodied population is decreasing. In 2020, about 9.4% of the populations (719.4 million people) will be people aged 65 and over, compared with 7.3% (477.4 million) in 2015 (Human Development Report, 2009; Franklin, Andrews, 2013).

In legal science, the issues of **procurement of medicines** were studied by domestic and foreign scientists, such as N. O. Vetiutneva, S. H. Ubohov, O. V. Kuzmenko, V. K. Kolpakov, H. H. Pylypenko, A. P. Radchenko, M. V. Rymar, O. H. Strelchenko, L. O. Fedorova and others. However, **public procurement of medicines** is not considered enough, consequently, the chosen topic of the scientific article is of timeliness and importance.

Therefore, understanding the doctrinal approaches to public procurement of medicines 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 the genesis of public procurement of medicines; second, to analyse the perspectives available in the special literature in relation to public procurement of medicines; third, to propose an author's original approach to public procurement of medicines.

2. Main material

In Ukraine, the current state of affairs of public procurement of medicinal products and medical devices in the healthcare sector poses a threat to the timely provision of patients with quality, safe, and effective medicinal products and medical devices, which leads to a deterioration in public health and an increase in mortality rates.

In Ukraine, public procurement of medicinal products and medical devices is a complex procedure with many components and is regulated by legal regulations, in particular the Law of Ukraine "On Public Procurement," in which medicinal products and medical devices are considered as any other goods, by other laws and subsidiary laws in the health care. This is unacceptable in relation to medicinal products and medical devices.

Therefore, to interrogate public procurement in medication circulation, the genesis of determinants of "medicines", "public procurement" and "public procurement of medicines" should be studied.

For example, medicines are one of the most economically attractive products. However, it should be considered that medicines are not an ordinary commodity but an important means of ensuring constitutional human rights to health and life.

It is important to explore the term "medicines" to assure the quality, safety, and efficiency of medication circulation.

Article 2 of the Law of Ukraine "On Medicines" defines a "medicinal product" as any substance or a combination of substances (one or more API and excipients) having properties for treating or preventing diseases in human beings, or any substance or a combination of substances (one or more API and excipients) that may be used to prevent pregnancy, restore, correct or modify physiological functions of human beings by pharmacological, immunological or metabolic action or to make medical diagnosis (Pro likarski zasoby).

The Free Encyclopaedia Wikipedia interprets the term "medication" (also referred to as "medicine," "pharmaceutical drug") as substances or a combination of substances used for preventing, diagnosing, treating diseases, preventing pregnancy, eliminating pain; derived from blood, blood plasma, organs and tissues of human beings or animals, plants, minerals, chemical synthesis (pharmaceuticals, drugs or medicines) or with the use of biotechnologies (vaccines).

The Pharmaceutical Encyclopaedia defines a "medicinal product" as a product of pharmaceutical activity having a certain composition, a certain dosage form, packaging, expiration date. It is assigned to a sick person with a view to diagnosing, treating or relieving the symptoms of the disease or changing the condition of organism's physiological functions, as well as preventing, for example, contraceptives, stress drugs, etc. For medicinal products, strict requirements are put forward (therapeutic efficacy, safety, the accuracy of dosing active substances, stability, etc.), and their usage in medical practice is allowed only after state registration (*Farmakolohichna entsyklopediia*).

Therefore, in this interpretation, the main feature is the action, composition, form, packaging and expiration date, which, in our opinion, do not convey a significant meaning. Moreover, the definition of the origin and quality of the pharmaceutical product would be more appropriate.

Scientists-pharmacologists suggest a more formalized and legitimated definition of a medication.

Medicinal product is a pharmacological agent of natural, synthetic or semi-synthetic origin having properties to prevent pathological process or to cause a therapeutic effect on diseases and is officially authorized for treating patients by the official body of

the state (Chekman, Horchakova, Kazak, 2011). In this interpretation, therapeutic properties are recognized as a special feature of medicinal products, moreover, the official authorization by the state body, that is, the registration of the medication and its origin, is underlined as another important feature.

According to M. I. Yabluchanskyi and V. M. Savchenko, a "medicinal product" is a pharmacological agent that, in the prescribed manner, is authorized by the authorized body for treating, preventing or diagnosing pathological conditions (diseases and clinical syndromes) in medical and veterinary practice (Abduieva, Bychkova, Bondarenko, 2011).

This definition emphasizes that medications should be legally permissible (in our case, be included in the State Register of Medicinal Products) for the corresponding purposes, but does not describe real therapeutic properties for medical use.

It should be noted that the proposed restriction of certain medicines with the introduction into the State Register of Medicinal Products constrains business entities engaged in pharmaceutical activities. This affects the development of new medications and persons promoting a new, modern medicine in the medication market because the subject of their activities is not clarified. The medicinal product should be opposed to non-medicinal to solve this problem of pharmacists. In various works, it is called a pharmacological preparation, a medicinal substance, a medicinal compound, a pharmacological agent, a clinical sample, etc. The main difference from the medicinal product is that it is not included in the State Register of Medicinal Products, and therefore, it is not permitted for use in Ukraine. The pharmacological (non-medicinal) agents are medicines that are under development, inspection and testing, foreign medicines not authorized in Ukraine, medicines authorized to use in Ukraine earlier, but now authorization is absent (cancelled or expired), etc. (Zyma, 2015).

According to H. R. Dzvoniv, N. I. Makhonko, *medicinal products* are substances used for preventing, diagnosing, treating the disease, preventing pregnancy, derived from blood, blood plasma, as well as organs, tissues of human beings or animals, plants, minerals by synthesis or biological techniques (Dzvoniv, Makhonko).

The identified determinants reveal that the lexeme "medicinal products" needs to be clarified because of its significant overload. Therefore, the authors suggest an original determinant of a ***"medicinal product" as a substance or a combination of substances of organic (e.g. chloroform, ethyl chloride) and inorganic (e.g. oxygen and odrogen) origin with the corresponding pharmacological action, which are used for the prevention, diagnosis, treatment of diseases and prevention of unwanted pregnancy.***

The next research category is the determinant of "public procurement."

Therefore, "public procurements" are procurements of goods, works, and services by the customer from public funds or on behalf of a public institution.

The category "public procurement" can be also interpreted as:

- procurement carried out by the state or its separate subdivision;
- funded by the state;
- carried out in the interests of the state and the procuring body;
- the state controls the procurement (Shcho take derzhavni/publichni zakupivli?).

Other interpretations of "public procurement" follow. Public procurements include the following aspects:

- procurement is carried out by the public administration;
- the purchase of goods and services is funded from taxpayers' money;
- procurement is carried out in the interests of citizens for the provision of quality services by a public administration or a state-owned enterprise;
- citizens can participate in controlling public procurement (Shcho take derzhavni/publichni zakupivli?).

Hereinafter, the term "public procurement" means purchases carried out in Ukraine before today's reform. At the same time, "public procurement" means open and public tenders, which should become a reality of modern health care reform in general (Shcho take derzhavni/publichni zakupivli?).

Therefore, the authors suggest an original definition of the determinant of ***"public procurement" as the activities of the public administration or its authorized structural units, aimed at procurement of goods, works, and services by the customer funded from the taxpayers' money and carried out in the interests of citizens via a transparent state control (via the Prozoro system).***

In the study, doctrinal characteristics of the category "public procurement of medicinal products" should be made because it is not studied by scientists and is not defined by the legislation.

Therefore, "public procurement of medicinal products" should be understood ***as the activities of the public administration or specialized agencies authorized by it, aimed at procurement of medicinal products by the customer funded from the taxpayers' money and carried out in the interests of preserving the health of citizens via a transparent state control (via the Prozoro system).***

However, it should be noted that the underlying and well-known problems in public procurement of medicinal products and medical devices are corruption and limited competition leading to public procurement of medicinal products and medical devices at inflated prices. Over the last few years, many issues have been accumulated at different decision-making levels leading to a violation of the principle of equality of access to medicines and medical devices, and a state of affairs

when patients remain without proper treatment and epidemics occur though they can be prevented by vaccination. Measures have been taken to introduce best practices from other countries (for example, the use of a reference price pool, piloting of reimbursement), but these initiatives have been discontinued.

As the problems in public procurement of medicinal products and medical devices constitute life-threatening situation, the existing system of public procurement of medicinal products and medical devices is inadmissible to maintain.

Considering that the proper implementation of any public procurement reform takes time, and provision of the population with the necessary medicinal products and medical devices should be permanent and continuous, the Verkhovna Rada of Ukraine adopted a decision on the temporary, until March 31, 2019, transfer of public procurement of medicinal products and medical devices from the Ministry of Health of Ukraine to specialized procurement organizations, by adopting the Laws of Ukraine no. 269-VIII as of March 19, 2015, "On Amendments to some Laws of Ukraine on ensuring timely patient access to appropriate medicinal products and medical devices through the implementation of public procurement with the involvement of specialized organizations carrying out procurement" and no. 332-VIII as of April 9, 2015, "On Amendments to the Tax Code of Ukraine regarding the exemption from taxation of certain medicinal products and medical devices." In addition, in the implementation of this procurement mechanism, a number of other legal regulations were adopted and/or amendments were made to the relevant legal regulations. Therefore, on March 31, 2018, the countdown of the last year of procurement of medicinal products and medical devices with the involvement of specialized procurement organizations started. The date of March 31, 2019, is determined by legislation as the deadline for such procurement.

The development of public procurement of medicines reveals that in 2014 the Association Agreement between Ukraine, on the one part, and the European Union, the European Atomic Energy Community and their member states, on the other part, provides for the creation of a Deep and Comprehensive Free Trade Area. To carry out the above-mentioned Agreement, in the part of public procurement reform, the Cabinet of Ministers of Ukraine approved the Strategy for Reforming the Public Procurement System (Cabinet of Ministers of Ukraine) ("Roadmap"). According to these documents, one of the most important and promising areas for reforming the public procurement system is the introduction of EU experience in centralizing procurement through the creation of a centralized procuring organization in Ukraine (Cabinet of Ministers of Ukraine).

Public procurement of medicinal products and medical devices in Ukraine is carried out through centralized and decentralized systems. The decentralized system provides with the opportunity to take into account the needs of territorial communities of end users of goods and services procured. However, such a system is rather ineffective since it limits the possibilities for obtaining such benefits as saving through the combination of total procurements and time expenditures. Moreover, such a system is not effective due to a significant number of low-paid workers, for whom procurement procedures are additional burdens that are above main occupational responsibilities, which leads to risks of corruption.

Numerous decisions of the Antimonopoly Committee on complaints about public procurement procedures of medicinal products and medical devices in the health care, with the statement of discriminatory conditions, indicate a potential customer engagement due to low motivation and/or insufficient qualification of specialists who formulate technical tasks and conduct procurement procedures.

The central procurement system of the MOH and decentralized procurement at the regional level has been ineffective for many years (unacceptably high prices, delay in tendering, the reluctance of companies to bid, which led to a reduction in competition, lack of medicines, etc.). Furthermore, the problem of corruption is well known.

The problem of the public procurement system in the health sector is multifaceted. The problems arise at stages of: a) the formation of a sectoral standard in the health care; b) the formation of a list of medicinal products and medical devices to be procured; c) the selection of medicinal products and medical devices for procurement; d) the formation of information on the subject of procurement and tender documentation, which may contain discriminatory conditions indicating that the documentation is being prepared for a particular participant; e) the activities of the tender committee, authorized to make changes to the information on the subject of procurement; g) public procurement of medicinal products and medical devices.

At the same time, considering the importance of reforming the stage of preparation for procurement, this Concept aims at solving problems that arise at the stage of public procurement of medicinal products and medical devices.

To ensure transparency and explicability of costs during public procurement of medicinal products and medical devices, it is necessary to eliminate the shortcomings of legislative regulation at the specified stages of procurement, which can be used by unscrupulous customers and participants in procurement for corruption purposes and predation.

However, the problem of underfunding, a significant effect of the exchange rate fluctuations on total public procurement of medicinal products and medical devices of foreign production and the lack of long-term multi-year planning of such procurements is well known.

3. Conclusions

Therefore, currently, public procurements of medicinal products are performed on a general basis only according to the Law of Ukraine "On Public Procurement", where medicinal products are defined as "any other goods". In this case, the provisions and requirements of the Laws of Ukraine "On Medicines," "On Amendments to some Laws of Ukraine on ensuring timely patient access to appropriate medicinal products and medical devices through the implementation of public procurement with the involvement of specialized organizations carrying out procurement," "On Amendments to the Tax Code of Ukraine regarding the exemption from taxation of certain medicinal products and medical devices" and corresponding Resolutions of the Cabinet of Ministers of Ukraine, Orders of the Ministry of Health of Ukraine, which determine the special requirements for their procurement, etc. must also be considered. Moreover, first, the Law of Ukraine "On Public Procurement" should be supplemented by the author's determinant of "medicinal products" that are the subject of public procurement, to substitute attribution to "any other goods" by identification; second, Article 1 of the Law of Ukraine "On Medicines" should be supplemented by the author's category "public procurement of medicinal products."

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MANAGEMENT (ADMINISTRATIVE) ACTIVITY OF THE CONTROLLING AUTHORITIES IN THE AREA OF TAXATION: ESSENCE AND TYPES

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Abstract. The innovation of conceptual provisions of the administrative law doctrine that are based on the priority of rights, freedoms, legitimate interests of an individual, service orientation of the public administration authorities' performance affects the essence of the controlling authorities' management (administrative) activity in the area of taxation and requires its fundamental upgrade. Drafting of theoretical provisions as to the essence and the types of the controlling authorities' management (administrative) activity in the area of taxation should be based on a profound theoretical and legal analysis of the existing concepts and doctrines and their comparison with the current developments in the public administration authorities' performance that carry out similar activities. In addition, it's reasonable to highlight the issues of legal regulation of the relations with respect to the controlling authorities' management (administrative) activity carried out in the area of taxation. The research objective is to substantiate the theoretical background of the controlling authorities' management (administrative) activity in the area of taxation set out in the form of a list of the substantive characteristics of such activity, the provisions that reflect its peculiarities, as well as the systematization of the lines and types of such activity. The object of the research is the social relations of a public-law nature, related to the activities of the controlling authorities in the area of taxation. The contemporary concepts and doctrines developed by the scientists through critical thinking constitute the theoretical basis of the scientific analysis. This article explores the scientific papers related to the issues of public administration, administrative law, and administrative activity. System-based approach constitutes the methodology of the scientific analysis which made it possible to single out the elements of the administrative activity system, to reveal their content and to take into account their specific features when determining the nature of the controlling authorities' management (administrative) activity in the area of taxation. The result of this research is the theory that reveals the current essence of the specified activity and its lines. This article places emphasis on the existence of public and service component of the specified activity.

Key words: management activity, administrative activity, controlling authorities, taxation, lines of activity.

JEL Classification: K34, H71

1. Introduction

The relevance of the problem as to determining the essence of the administrative activity of the controlling authorities in the area of taxation is driven by fundamental innovation of the administrative law doctrine, rethinking of their tasks from the viewpoint of compliance with the tasks of the service that performs a service function. This problem is directly related to the appropriate implementation of the provision of Article 1 of the Constitution of Ukraine which codifies that Ukraine is a sovereign and independent, democratic, social and rule-of-law State (Constitution of Ukraine as of the 28th of June 1996) (Konstytutsiia Ukrainy vid 28.06.1996 – in Ukrainian). The specified constitutional legal provision stipulates for all government authorities performance effectiveness, and especially those targeted at ensuring national financial security, generation of the revenue part of the National Budget and the budgets at all levels, raising money for the state special-purpose funds as the essentials for further social and economic growth of Ukraine.

In applicable legislation, terms "revenue and duties authorities", "fiscal service", "controlling authority" are applied to indicate the subject of the state control in

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the area of taxation. Thus, Article 283 of the Code of Administrative Court Procedure (hereinafter referred to as the CACP) determines the peculiarities of the proceedings on the cases if they are brought before the court by the revenue and duties authorities (on making amendments in the Code of Commercial Procedure of Ukraine, the Civil Procedure Code of Ukraine, the Code of Administrative Court Procedure of Ukraine and in the other legislative acts: Law of Ukraine as of the 13th of March 2012) (Pro vnesenniazmin do Hospodarskoho protsesualnoho kodeksu Ukrainy, Tsyvilnoho protsesualnoho kodeksu Ukrainy, Kodeksu administrativnoho sudochynstva Ukrainy ta inshykh zakonodavchykh aktiv: Zakon Ukrainy vid 03.10. 2017 – in Ukrainian). Term "revenue and duties authority" is applied in the Customs Code of Ukraine (Mytnyi kodeks Ukrainy vid 13.03.2012 – in Ukrainian). Term "controlling authority" has been applied in the Tax Code of Ukraine (Podatkovyi kodeks Ukrainy (red. 01/01/2017): Zakon Ukrainy vid, 02.12.2010 – in Ukrainian), and term "fiscal service" has been applied in Resolution of the Cabinet of Ministers of Ukraine as of the 21st of May 2014 Ref. No. 236 "On the State Fiscal Service of Ukraine" (Pro Derzhavnu fiskalnu sluzhbu Ukrainy: Postanova Kabinetu Ministriv Ukrainy vid 05/21/2014 – in Ukrainian).

The stated above indicates a need to unify the terms that are used in the applicable law and specify the subject authorized to exercise the state control in the area of taxation. Taking into account the indicated above, application of the term "controlling authority in the area of taxation" does not contravene the allocable law but allows to define the subject of the state control in the specified area and its place within the system of the government authorities, in particular, belonging to the structure of the State Fiscal Service of Ukraine (hereinafter – the SFS).

In the course of the SFS offices' tasks performance the management (administrative) activity holds a special place. The activity above seeks to solve not just managerial tasks. It is also related to the implementation of the law-enforcement function of the state. At the same time, administrative legal proceedings perform a dual function: on the one hand, it serves as a legal institution intended to protect violated rights, freedoms, legal interests of individuals and legal entities-taxpayers from offences against law by the SFS offices (SFS offices' employees) when implementing the administrative activity and on the other hand, a form for implementation of the government task by the SFS offices as to protection of the interests of the state through filing a petition in the administrative court in the cases set forth in Article 283, Part 1, the CACP.

2. Theoretical basis

In the scientific research of administrative law and process, the issue related to the essence of the controlling authorities' administrative activities in the area of taxation has not yet been the subject of a separate scientific inquiry. The researchers at the level of the thesis for a doctor's degree analysed the issues related to the State Tax Service management (Bandurka, 2005), administrative and legal status of the Head within the State Tax Service offices (Holovach, 2011), the issues of taxation system establishment, administration and reform (Uhrovetskyi, 2009). In the context of the topic, which is being researched, the monograph by V. V. Konopliov attracts interest with a focus on management decisions within the internal affairs offices (Konoplyov, 2006).

Among the scientific research, we should indicate the presence of such direction of theoretical analysis as a problem of tax disputes settlement (Y. A. Usenko (Usenko, 2011), V. V. Tylchyk (Tylchyk, 2011) and others). Many scientific papers are dedicated to research of the separate aspects as to definition and implementation of the legal status by the revenue and duties authorities (O. P. Dzisiak (Dzisiak, 2002), A. M. Kulish (Kulish, 2003) and others). Recently the research direction of the essence of information relations (I. V. Aristova, K. I. Bieliakov (Bieliakov,2008), A. M. Novytskyi (Novytskyi, 2012) and others) have been developing dynamically.

Notice that, in fact, the term "administrative activity" in modern administrative legal science hasn't been used extensively enough in view of the following: first, use of other more fixed terms such as "public administration", "executive and administrative activity", "administrative-legal influence"; second, lack of clear approaches to definition of the executive authority's administrative activity, its tasks, principles, difference from the other types of activities; third, different understanding of the balance of such categories as "function of the executive authority", "executive authority's line of activity", "executive authority's type of activity"; fourth, absence of direct legislative framework for administrative activity as an independent line of the activity conducted by the executive authorities (Redkous, 2008).

According to the Concept of Public Administration Reform in Ukraine, codified in Decree of the President of Ukraine "On the Measures to Implement the Concept of Public Administration Reform in Ukraine" (Pro zakhody shchodo vprovadzhennia Kontseptsii administrativnoi reformy v Ukraini: Ukaz Prezydenta Ukrainy vid 22.07.1998 – in Ukrainian), its implementation is underway in several lines. By V. V. Halunkonotes, these are such lines as:

- drafting of a new legal framework to regulate public administration in Ukraine, including information provision of this activity; establishment of the institutes of new organizational structures and instruments to carry out public administration; staffing of a new public administration system; strengthening and setting up of a new financial and economic framework for public administration

functioning, including administrative activity in the area of tax collection; scientific and information support of public administration system, development of the mechanisms for scientific and information monitoring of its functioning (Halunko, 2011).

Nevertheless, such important regulatory legal acts to regulate the administrative activity as Administrative Procedural Code of Ukraine, Information Code of Ukraine, and a number of other regulations haven't been adopted yet. Their effect should be aimed at optimization of the administrative authorities' operation procedures at regional and local levels, avoidance of overlaps of the functions between the regional offices of central executive authorities and local executive authorities, as well as improvement of public administration institutions interaction with the citizens.

Such foreign and domestic scientists focused their attention on the issue of the government authorities' administrative activity in the area of theory of state and law, the theory of public administration, administrative law and process:

V. B. Averianov (Administrative activity) (Administratyvna diialnist: M. V. Kovaliv, S. R. Kisil, D. P. Kataianovtain, 2009 – in Ukrainian), O. O. Bandurka (Bandurka, 2004), D. M. Bakhrakh (Bakhrakh, 2000), I. L. Bachylo (Bachylo, 2001), Y. P. Bytiak (Bytiak, 1999), I. P. Holosnichenko, Y. Y. Kondratiev (Holosnichenko ta in., 2005), L. V. Koval (Koval, 1998), A. P. Korenev (Internal affairs offices' administrative activity) (Admynystratyvnaia deiatelnost orhanov vnutrennykh del. Chast obshchaia. Pod red. A. P. Koreneva, 2003 – in Russian), V. Y. Malynovskyi (Malynovskyi, 2005), Y. M. Moiseiev, V. I. Olefir, Y. I. Rymarenko (Internal affairs offices' administrative (law enforcement) activity) (Administratyvna (politseiska) diialnist orhaniv vnutrishnikh sprav (Zahalna chastyna): Yu. I. Rymarenko, Ye. M. Moiseiev, V. I. Olefir, 2008 – in Ukrainian), V. D. Pryimachenko (Pryimachenko, 2007), Y. A. Tykhomyrov (Teremetskyi, 2012) and others.

3. Results

Within the scope of the subject presented, it is reasonable to analyse, in the first instance, the essence of administrative activity and the approaches to its definition.

By administrative activity L. V. Koval (Koval, 1998) means publication of regulatory and individual acts. I. P. Holosnichenko, Y. Y. Kondratiev define administrative activity as the activity of government executive authorities aimed at ensuring the protection of civil rights, public safety, detection, suspension, and prevention of offenses (Holosnichenko ta in., 2005). A. P. Korenev (Internal affairs offices' administrative activity) (Admynystratyvnaia deiatelnost orhanov vnutrennykh del. Chast obshchaia. pod red, A. P. Koreneva, 2003 – in Russian) characterizes administrative activity as the implementation of functions as to practical ensuring of personal safety of citizens, protection of public order and public security. Y. A. Tikhomirov (Tykhomyrov, 2005) holds a different view and gives the following definition of administrative activity: it is public administration in the narrow sense, that is, the activity of government authorities, executive-administrative authorities of the state as to exercise of executive power at its different levels.

The scientists in their scientific research define the essence of administrative activity mainly in logical and conceptual connection with the subject of its implementation, i.e. by the State Penitentiary Service of Ukraine (R. V. Aliiev (Aliiev, 2009)), the internal affairs offices (D. V. Holoborodko (Holoborodko, 2009), S. M. Husarov (Husarov, 2009), V. O. Zarosylo (Zarosylo, 2002)), the State Border Guard Service of Ukraine (B. M. Marchenko (Marchenko, 2009), L. V. Servatiuk (Servatiuk, 2008)), the Ukraine's State Tax Service offices (T. O. Mazelyk (Matselyk, 2005)), the customs authorities (D. V. Pryimachenko (Pryimachenko, 2007)). According to the subject of research, it is reasonable to point out the scientific paper of V. B. Marchenko, dedicated to the administrative and legal regulation in the area of tax collection (Marchenko, 2009.) A number of scientists used to analyse administrative activity in the context of police law (Y. I. Rymarenko, Y. M. Moiseiev, V. I. Olefir and others (Internal affairs offices' administrative (law enforcement) activity) (Administratyvna (politseiska) diialnist orhaniv vnutrishnikh sprav (Zahalna chastyna): Yu. I. Rymarenko, Ye. M. Moiseiev, V. I. Olefir, 2008 – in Ukrainian)).

The concept of administrative activity is considered both in general and applied aspect. The most common definition of the executive authority's administrative activity was formulated by D. N. Bakhrach: "Administrative activity is a systematic, continuous organization seeking to preserve the social system, its strengthening and development" (Bakhrakh, 2000).

It is appropriate to agree with the viewpoint of N. I. Zolotariova who used to recognize a broader meaning of "government authority's administrative activity" concept of as compared to executive power the concept. Thus, administrative activity by the subject of its implementation does not coincide with executive power, which is exercised only by the authorities of this branch of the government and special institutions delegated with powers to perform the functions of the executive authorities. Administrative activity as a management activity, regulated by the administrative law provisions, is carried out not just by the executive authorities. Organizational legal relations govern the norms of the administrative law and exist within the scope of the activities performed by the courts, the prosecutor's office, the secretariat of the Parliament of Ukraine (the Verkhovna Rada of Ukraine) or the Presidential Administration, where administrative functions are performed (Zolotariova, 2011).

Nevertheless, the specific character of the subject of administrative activity affects its features, determined by the legal status of the corresponding subjects, the tasks and the functions they perform. This raises the question of clarification of the essence of the controlling authorities' administrative activity in the area of taxation.

Public administration science defines administrative activity as the executive and administrative activity of public authorities governed by the norms of administrative law and aimed at the implementation of rights and freedoms of citizens in management (Hrobova, 2010). In this definition, due regard has already been paid to the main purpose of public administration authorities' administrative activity, which is the implementation and protection of rights and freedoms of citizens.

However, controlling authorities in the area of taxation, in particular, the SFS offices that are vested with greater part of supervisory powers, as compared to other government authorities, in the course of their day-to-day operations, perform a number of specific actions that determine the essence and the scope of their administrative activity and map into the corresponding attributes (features).

As a critical provision, it's worthwhile to note the viewpoint of T. O. Mazelyk who used to point out controlling authorities as the subjects of administrative law participate in the following types of administrative legal relations: public administration; relations of administrative services; relations of public administration responsibility for unlawful actions or failure to act; relations of responsibility of the subjects of the society (individual and collective) for violation of the rules and the procedures established by public administration (Matselyk, 2010). Those particular groups of relations will characterize the types of the SFS offices' administrative activity as controlling authorities in the area of taxation.

The scientists did not address the issue of distinguishing the features of SFS offices' administrative activity of (just as the features of Ukraine's State Tax Service offices' and revenue and duties offices' administrative activity) and, therefore, we should turn to the existing finalization dedicated to administrative activity.

Thus, when mapping out the features of internal affairs offices' administrative activity, the researchers used to call their attention not only to public and authoritative character, regulatedness by the norms of administrative law, etc., but also due account for the peculiarities of operational situation, the possibilities of causing legal consequences or without causing such (V. V. Konopliov (Konopliov, 2006). From D. V. Pryimachenko's perspective, the characteristic features of the customs authorities' administrative activity include, in addition to those indicated above, such features as public character(carried out not for satisfaction of private, personal needs of those who are entrusted with it but for the benefit of "one" and "all"), inclusion of both law-making and law-enforcement activity, regularity, continuity, planning, reasonable combination of centralized management with direct (operational) management, subordination and controllability of administrative activity to the corresponding state institutions; professionalism, preventive character (Pryimachenko, 2007). The researchers of the problem as to selecting of the administrative activity features of the certain executive authority used to point out its definiteness according to competence, normative due process, regulatory character, internal organizational and external orientation, etc.

The characteristic features defined by V. V. Konopliov and D. V. Pryimachenko can be taken as a basis for determination of the SFS offices' administrative activity features. In this context, we should highlight such main (leading) features as regulatedness by the norms of administrative law and state power. However, to get a complete picture of the SFS offices' administrative activity bodies, its components should be considered.

In public administration literature, administrative activity is presented as a system composed of the following elements: planning, organization, HR management, management, coordination, reporting, budgeting (Public administration: glossary, Bakumenko V. D., Beznosenko D. O., Varzar I. M., under the editorship of V. M. Kniazieva, V. D. Bakumenko, 2002) (Derzhavne upravlinnia: slovnyk-dovidnyk, Bakumenko V. D., Beznosenko D. O., Varzar I. M. ta in., red. V. M. Kniazieva, V. D. Bakumenko, 2002 – in Ukrainian). However, some scholars object to this approach because it combines different levels of the public administration function generalization with the specific stages of its implementation. Thus, in the opinion of S. Kyrii, the following subsystems should be identified within the administrative activity system: institutional, institutionary, function-based, organizational, communication and HR-related (Kyrii, 2009).

Institutional subsystem is a set of public administration authorities and officials formalized on the basis of the laws of Ukraine, decrees of the President of Ukraine, resolutions of the Cabinet of Ministers of Ukraine and administrations of the corresponding levels of the government that carry out organizational and administrative functions of the state (Kyrii, 2009). Institutional system of the SFS offices' administrative activity is manifested in the levels of building up a management system to control the said offices.

Institutionary subsystem is a set of formal and informal rules that facilitate administrative activity or on the basis of which this activity is carried out. They can include regulated and informal interaction rules between subject and objects of public administration (Kyrii, 2009). Such rules for the SFS offices' administrative and other activities implementation are fixed by the regulation

which establishes this authority's status and by other acts of the applicable law, governing the specific features for the implementation of the competence to exercise state control in the area of taxation. Among the rules above, we should highlight, in particular, implementation of the measures to prevent corruption and control over their implementation within the SFS Headquarters, its territorial offices; implementation of HR related function, arrangement of planning and financing work and accounting; provision of methodological support; public relations; arrangement of work related to staffing, storage, record keeping and use of archive documents; arrangement of informational and analysis support of the SFS and its activities automation; documentation management (Pro Derzhavnu fiskalnu sluzhbu Ukrainy: Postanova Kabinetu Ministriv Ukrainy vid 05/21/2014 – in Ukrainian) (On the State Fiscal Service of Ukraine: Resolution of the Cabinet of Ministers of Ukraine as of the 21st of May 2014). In addition, Article 20 of the Tax Code of Ukraine (hereinafter – the TC of Ukraine) stipulates the rights of controlling authorities in their relations with taxpayers and government authorities and Article 21 stipulates obligations and responsibilities. Analysing the orders of the applicable law as to the rights of controlling authorities in the area of taxation (in particular, the SFS offices), it may be noted that the Ukraine SFS offices perform not just administrative activity but also financial and legal activities in the area of taxation. What is more, the latter is performed through enforcement, in particular, measures of financial and legal enforcement.

The function-based subsystem is a set of functions performed by the subjects of public administration in the process of administrative activity implementation. It includes main functions of public administration: planning, motivations, organization, control (Kyrii, 2009). Such functions of the DFS offices (controlling authorities) are set forth in Article 19-1 of the TC of Ukraine and they include: control over compliance with tax legislation, accuracy of accrual and duly payment of taxes and duties (obligatory payments) to the budgets, special-purpose funds, as well as non-tax revenues established by law; formation and maintenance of the State Register of Individual Taxpayers and other obligatory payments and the Uniform Individual Taxpayers and Legal Entities Data Bank; awareness-raising work among the taxpayers about the tax legislation; prevention of crimes and other offenses that fall within the authority of tax police in accordance with the legislation; their disclosure, suspension, investigation and legal proceedings on administrative violations, implementation of national tax policy, as well as the policy in the area of control over production and turnover of alcohol, alcoholic beverages and tobacco and a set of others functions provided for by the TC of Ukraine (Podatkovyi kodeks Ukrainy (red 01/01/2017): Zakon Ukrainy vid 02.12.201 – in Ukrainian) (Tax Code of Ukraine as amended on the 1st of January 2017: Law of Ukraine as of the 2nd of December 2010).

In view of the above functions performed by the SFS, it can be concluded that the administrative activity of the authorities indicated above is not just of human rights practices nature but also of law enforcement nature.

The organizational subsystem includes mechanisms for organization and implementation of administrative activities (Kyrii, 2009). As a part of administrative activity, Section II of the TC of Ukraine is dedicated to the administration of taxes and payments, which regulates the procedure with respect to the following: provision of tax advice (Chapter 3); ways of tax control implementation and tax control authorities (Chapter 5); taxpayer registration (Chapter 6); audits and types of audits (Chapter 8); taxpayers' tax debt repayment procedures (Chapter 9); types and procedures for application of sanctions for violation of tax legislation are fixed (Chapter 11). In addition, the procedure for imposition of administrative sanctions for violation of tax legislation is regulated by the Code of Ukraine on Administrative Offenses (hereinafter CUoAO) (Kodeks Ukrainy pro administrativni pravoporushennia: Zakon Ukrainy, 1984 in Ukrainian). Specific types of administrative activity are also regulated by the Laws of Ukraine "On Use of Cash Registers in Trade, Catering and Services" (Pro zastosuvannia reiestratoriv rozrakhunkovykh operatsii u sferi torhivli, hromadskoho kharchuvannia ta posluh: Zakon Ukrainy vid 06.07.1995), "On State Regulation of Production and Turnover of Ethyl Alcohol, Cognac and Fruit Spirits, Alcoholic Beverages and Tobacco" (Pro derzhavne rehuliuvannia vyrobnytstva i obihu spyrtu etylovoho, koniachnoho i plodovoho, alkoholnykh napoiv ta tiutiunovykh vyrobiv: Zakon Ukrainy vid 19.12.1995 – in Ukrainian) and other regulatory acts.

At the same time, it should be noted that there are the scientific researches dedicated to financial and control law (Savchenko, 2017) that clarify specifically the nature of public financial control as a function of financial activity management and a final stage of the management process.

Communication subsystem is connected with the methods of information collection, analysis and processing in course of administrative activity implementation (Kyrii, 2009). Thus, Section II of the TC of Ukraine establishes the tax reporting filing procedure and the persons responsible for this filing (Chapter 2), the information and analysis support procedure for controlling authorities activities (Chapter 7). The HR-related subsystem is connected with a selection of highly-qualified personnel, work with personnel, with the establishment of the appropriate conditions for administrative activities (Kyrii, 2009). The fundamental principles of the SFS offices' employees are established in Section XVIII-1 of the TC of Ukraine

(Podatkovyi kodeks Ukrainy (red 01/01/2017): Zakon Ukrainy vid 02.12.2010 – in Ukrainian) (Tax Code of Ukraine, as amended on the 1st of January 2017; Law of Ukraine as of the 2nd of December 2010). The SFS offices' procedure for service accession, career, service termination is established by the Law of Ukraine "On Public Service" (Pro derzhavnu sluzhbu: Zakon Ukrainy vid 10.12.2015 – in Ukrainian)

In general, all components of the administrative activity in the course of its implementation are interrelated and interdependent and, in their entirety, they form an integral dynamic system (Kyrii, 2009).

4. Conclusion

Conducted research allows drafting the following conclusions. The essence of the SFS offices' administrative activity stems from the history of Tax Service establishment and it covers control, registration and law enforcement activities aimed at the implementation of National tax policy, fight against offenses in the area of taxation by the measures of administrative legal nature. On a large scale, this is of executive and administrative nature and under its specific lines, only the legislation provides for application of conciliatory, explanatory, contract procedures. It is for this reason that we can refer to the appropriateness of laying the emphasis on the public and service component of Ukraine's SFS offices administrative activity as the controlling authorities in the area of taxation.

5. Discussion

Existing theoretical insights dedicated to the issue of determining the essence of administrative activity, its types and lines come from its public and legal nature, executive and administrative nature, law enforcement nature (I. P Golosnichenko, Y. Y. Kondratiev, A. P. Koreniev, Y. M. Moiseiev, V. I. Olefir, Y. I. Rymarenko and others), and occasionally they are limited to its perceptions from the viewpoint of view of exercise of executive power (Y. O. Tikhomirov). Additionally, there are scientific papers that recognize the organizational nature of the administrative activity, which becomes apparent in the certain functions of government authorities (N. I. Zolotariova).

As compared to the existing scientific papers, when determining the essence of administrative activity, it is proposed to take into account logical and semantic connection between the activity indicated above and the tasks and the functions performed by a subject of public relations according to its administrative-legal status. The indicated above is directly concerned with the controlling authorities in the area of taxation, in particular, Ukraine's State Fiscal Service offices that in comparison with other controlling authorities have a wider range of powers to control that perform specific tasks and functions determining the specific nature of their management (administrative) activity.

This approach does not conflict with the characteristic of administrative activity from the standpoint of structural and functional component of public administration (S. L. Kyrii) that allowed to agree with existence of the elements of dynamic administrative activity system and extrapolate (expand) this approach to definition of the essence of the controlling authorities' management (administrative) activity in the area of taxation.

2. The article defines that the SFS offices' administrative activity is carried out in the following lines:

A) Depending on the type of administrative legal relations involving the SFS office or its officer: public administration (establishment, reorganization, liquidation of the SFS Regional Offices, issuance of management legislative acts of regulatory nature, etc.); relations of administrative services (taxpayer registration, accountants of settlement operations, cash registers, issuance of licenses, patents, certificates, provision of tax advice, etc.); relations of responsibility of public administration for unlawful actions or inaction (appeal of the SFS offices' decisions, actions or inaction by administrative or judicial procedure; taking disciplinary action against the SFS offices' employees); relations of the taxpayers' liability for violation of the rules and the procedures established by public administration (bringing administrative action against them, application of administrative enforcement measures);

B) Depending on the type of the procedure being performed: non-jurisdictional (issuance of regulatory and individual management acts, registration, licensing, patenting, issuance of certificates, provision of tax advice, processing of the citizens' applications and proposals, recruitment to the SFS offices, encouragement of the SFS offices' employees, etc.) and jurisdictional (processing of the citizens' complaints, taking disciplinary actions, instituting administrative actions, auditing, administrative enforcement measures).

However, the most common will be consideration of the SFS offices' administrative activities implementation in the following lines: external administrative (external) and internal organizational (internal). External-administrative (external) line of the SFS offices activity is connected with the performance of their state functions on the basis of administrative regulations. Internal organizational (internal) line is connected with the organization of the SFS offices' system functioning.

3. Performed analysis of the specific features as to legal regulation of the SFS offices' activity and the scholars' achievements, proved advisability of presenting the controlling authorities' administrative activity concept in the tax area of taxation as regulatory, governmental activity related to implementation of controlling, registration, law enforcement actions, as well as internal

organization activities, that are regulated by the norms of administrative law and aimed at implementation of the National tax policy, the citizens' rights and their protection, fight against offences in the area of taxation and organization of the SFS offices functioning. This activity is largely of executive-administrative and public nature, and in its specific lines, the law provides for application of conciliatory, explanatory and contract procedures. The existence of the competence related to the implementation of such procedures allows detailing a public and service component of the SFS offices' administrative activity.

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OFFSHORE TERRITORIES: POSITIVE AND NEGATIVE IMPACTS ON THE GLOBAL ECONOMY

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Abstract. *The aim of the article* is to analyse and clarify the areas of development of offshore zones in the functioning of the world economic system. *The subject of the study* is offshore zones and offshore international centres as the locus of laundering of funds obtained by illegal means and their impact on the economy in total. *Methodology.* The study is based on the use of general scientific and special scientific methods in studying a coherent picture of development and possible trends in the further functioning of offshore zones in the global economic system. General scientific methods such as *deduction, induction, analogy, analysis, synthesis* enabled to reveal the implication of the world's offshore zones as a system for laundering illegally obtained funds. The comparative method enabled to distinguish the specific features of offshore zones and offshore international centres and to identify common and distinctive features. The prognostic method allowed forming an original outlook on the advantages and disadvantages of offshore activities. Logical-semantic and dogmatic methods enabled to define the concepts of "offshore jurisdiction", "offshore zone", "offshore financial centre" and their specific features. *The results* of the study enabled to consider offshore zones, offshore financial centres and international financial centres, in terms of their specific features, as certain territories and areas of certain states, where under the exclusive conditions of doing business outside the territory of registration, non-resident entities are granted benefits and privileges in doing business, taxation, registration, and financial reporting, as well as an exclusive privilege of confidentiality. *Practical implications.* In the study, first, the concepts of "offshore zone", "offshore financial centre", "international offshore centre" are defined; second, the scientific approaches to their classification are analysed and compared in the specialized literature, the Fifth Directive is considered as the main legal regulation of money laundering and the BEPS Project; third, the author's outlook on the positive and negative features of offshore activities and their impact on the world economy are substantiated. *Relevance/originality.* The author's approach to the definition of the main features of offshore zones and offshore financial centres through the analysis of their qualitative characteristics is offered to determine the key areas of their development trends.

Key words: financial system, offshore financial centre, offshore zone, offshore jurisdiction, black lists, grey lists, directive, money laundering.

JEL Classification: O16, P34

1. Introduction

It has been repeatedly emphasized that annually a system of well-established schemes of international offshore zones enables illegal withdrawal of large amounts of funds from the financial systems of each country. Due to the creation of offshore jurisdictions, in the global economic network, so-called "tax havens," the areas where capital operates freely and brings illegal proceeds to its owners, exist. The use of privileges and benefits of offshore zones, such as reduction of tax, currency and transaction control, and the confidentiality regarding the final beneficiary, confirms the relevance and necessity to study the activities of offshore zones and centres in their inextricable link, as well as their destructive impact on the economy of individual countries and the financial system in total. Therefore, this enables to avoid taxation and use such schemes of the illegal currency movement to extend the scale of shadow processes in the global economy.

At different times, the study of offshore activity and its impact on the development trends of the world economic system was undertaken by scholars, such as D. Meadows, J. Tobin, N. Shaxson, V. V. Virchenko, O. I. Borysov, A. M. Voronin, V. O. Virchenko, D. Yu. Holubkov, N. Yu. Koniakhin, M. V. Korolov, A. N. Mykhailyn, V. P. Leshchuk, D. Yu. Mamotenko, I. I. Nikitchuk, A. I. Ryzhkova, N. M. Teliuk and others.

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In view of the above, it is relevant to study the issue of delineating the definitions of offshore zone, offshore financial centre, offshore jurisdiction, as well as the impact of such territories functioning from the perspective of "money laundering", which is considered in this paper. In order to achieve this objective, the following tasks should be: first, to outline the delineation of the main definitions of offshore territories and make the appropriate classification; second, to analyse the development of offshore activities and international legislative regulation of offshore counteraction; third, to suggest original outlook on effects of the capital outflow through offshore territories on the world economy.

2. Main material

The experience of successful refinancing, avoiding the legal taxation system has become an integral part of the world economic community. According to Boston Consulting Group statistics, the total offshore funds increased from 6 trillion USD in 2005 to 10 trillion USD in 2016, so the offshore territories hide 10-13% of world GDP (Ekonomisty pidrakhuvaly: v ofshorakh skhovano 10-13% svitovoho VVP). The instability of the world economies, constant oil price fluctuation, and the financial and economic crisis lead to a revival of money laundering, furthermore, to expanding boundaries of the shadow economy. Thus, as of 2016, about 35-40 countries of the world or their entities are offshore zones, which contribution to world GDP is relatively small (only 1.22%), while they account for about 60% of all financial transactions and 25% of the international movement capital in the world.

Considering the Financial Secrecy Index study, in 2018, the global amount of illegal cross-border financial flows is estimated at 1-1.6 trillion USD per year, and the total assets of offshore jurisdictions and tax havens reach 32 trillion USD. According to the Organization for Economic Cooperation and Development (OECD), due to the existence of such offshore zones, up to 250 billion USD of tax revenues disappear from the financial system of the countries of the world (Naskilky populiarni v Ukraini ofshory).

According to the 2016 International Narcotics Control Strategy Report of the Anti-Money-Laundering Agency, the countries with the highest levels of money laundering are Russia, the United States, the United Kingdom, Germany, and France. The relevance of this problem is also due to the fact that only in 2018, in the European Union about 110 billion EUR were "laundered", equivalent to 1% of the total GDP of the European Union, as well as exacerbation of using offshore schemes in the legalization of incomes avoiding the tax system, which leads to the decreasing state budget revenues. Therefore, this article attempts to determine the impact of offshore territories as free economic space on the economies of the states locally and on the global economy in total, as well as defining the concept of "offshore financial centre" and "offshore jurisdiction".

The concept of an offshore zone originates from English "off-shore", which means "situated at sea some distance from the shore", "outside own territory, abroad." An offshore zone or offshore jurisdiction (this definition can also be found in the specialized literature) is one of the varieties of free economic zones characterized by the creation of a favourable monetary and fiscal regime, a high level of banking and commercial secrecy, and loyalty to state regulation. Therefore, an offshore zone includes territories with a low or zero tax rate for all or certain categories of income, a certain banking or commercial secrecy, and a minimum or complete absence of reserve requirements of the central bank, or limitations on the currency convertibility.

According to A. N. Mykhailin, an offshore zone is a financial centre that attracts capital by providing tax and other preferences to non-residents of the country who have registered business in the offshore territory (Mykhailyn, 2015). In addition, in the concept of "offshore financial centres" N. Yu. Koniakhin includes territories or states with an extremely preferential regime for registration, taxation and conduct of financial transactions for foreign companies and banks (Koniakhina, 2008).

Furthermore, the Business Dictionary refers to offshore financial centres (hereinafter referred to as the OFC) as territories of such countries as Anguilla, Antigua, Bahamas, Bahrain, Cayman Islands, Hong Kong, Isle of Man, Jersey, Lebanon, Luxembourg, The Netherlands, Antilles, Panama, Singapore and the United Arab Emirates (UAE), which administrations do not interfere at all or partially in the legislative regulation of business and financial activities. In addition, the OFC also offers very low or zero tax rates and provides telecommunication infrastructure (Business dictionary). In most cases, the OFC is identified with an international financial centre.

International organizations define the term "offshore financial centre" as a territory divided into so-called tax havens and countries with favourable taxation, with a broad-based capital market that has a preferential tax and currency regime (Encyclopedia of offshore: a practical guide, 2007).

According to I. M. Tovkun, the OFC should be regarded as a part of the territory of the state, within which companies of foreign residents are registered and entitled to trade, financial and other commercial transactions on preferential terms (Tovkun, 2013).

Therefore, it can be argued that the main difference between offshore centres and offshore zones is that the latter are a part of individual states with preferential tax, currency, customs or administrative regimes and the absence of production activity of a non-resident country.

More practically, definition of the AFC can be interpreted as the centre where the bulk of the financial activity is an offshore party on both sides of the balance sheet (i.e. counterparties for most obligations and assets of financial institutions are non-residents), transactions are initiated elsewhere, and most of the institutions involved are controlled by non-residents.

Therefore, the main specific features of offshore territories are: 1) the primary orientation of business to a non-resident entity; 2) a favourable regulatory environment (low level of supervision, requirements and minimum disclosure); 3) schemes of low or zero taxation.

For example, in accordance with the classification of recognized international organizations FATF (Financial Action Task Force on money laundering) and FSF (Financial Stability Forum), the term "offshore financial centre" applies to territories with a developed capital market, preferential tax and currency regimes, and ignoring the recommendations of international financial institutions to improve international regulation and control of banking and financial currency systems (Business dictionary). Meanwhile, the OFC has a large amount of banking and insurance business on its territory, through which export-import transactions, operations with real estate, marine vessels, trust and consulting activities are carried out.

Offshore centres are larger in scale, infrastructure and production activities.

Therefore, the OFC usually include:

jurisdictions with a relatively large number of financial institutions, primarily engaged in business with non-residents;

financial systems with external assets and obligations that are inappropriate to domestic financial intermediation charged to finance national economies;

centres that provide some or all of the following services: low or zero taxation; moderate or easy financial regulation; bank secrecy and anonymity.

According to the functional determination, available activities and relevant financial and economic activities, the centres can be classified into:

International Financial Centres (London, New York, Tokyo), which include major international service centres that support large domestic economies with deep and liquid markets that borrow short-term non-resident loans and provide long-term loans to non-residents, with the further reliable legislative and regulatory framework.

Regional financial centres (Hong Kong, Singapore, Luxembourg) are fundamentally different from international ones by small-scale domestic economies.

Conventional financial centres (Paris, Frankfurt, Tokyo, Sydney). This category can include financial centres providing services, primarily aimed at meeting the needs of their national economies, not regions or the world.

Offshore financial centres, as a rule, differ from centres with very limited resources to support financial intermediation. Such centres usually provide preferences, such as wide opportunities for global tax planning, and only then provide services of the international financial centre; minimal registration procedures; the adequate legal framework to ensure the integrity of relations between principals and agents countries; proximity to major economies or countries attracting capital inflows; freedom from exchange control; protection of assets from the influence of legal proceedings, etc.

Ya. A. Shabeikin argues that according to the scale and nature of preferences provided, the offshore centres should be classified into territories with:

- preferential taxation providing full tax avoidance related to incomes of companies registered in a donor country.

These territories are called tax havens (the Antilles, Bahamas, Bermuda, British Virgin Islands, Gibraltar, Cayman Islands, Isle of Man, Nauru, Turks, and Caicos).

- moderate taxation, where the agreement on the abolition of double taxation is in force (Shabeikina, 2014).

In such territories, a minimum tax on profits is levied. In these countries, a favourable tax system, preferential terms for official offices have been created (Ireland, Switzerland, Luxembourg, Austria, the Netherlands, Antilles, Mauritius, Seychelles, Vanuatu, Madeira, Western Samoa, Saint Vincent, Cyprus, etc.).

The policy of investigating and countering offshore activities is implemented by a large number of international organizations, such as the most active Organization for Economic Cooperation and Development (OECD) and the Financial Action Task Force on Money Laundering (FATF).

In view of February 2018, information on bank scandals in Latvia, and then with the Maltese bank Pilatus and the Danske Bank affiliate in Estonia, the EU countries decided on the need to strengthen the control of the "money laundering" through offshore companies.

In light of these events, the Council of Europe adopted the Fifth Directive of May 4, 2018, which amended the current Directive no. 849 of 2015 (Piata Dyrektyva YeS rozshyriuie sferu diialnosti rehuliuiuchykh orhaniv Yevropeiskoho Soiuzu), among provisions of which the most important are enhancing transparency in the ownership of companies and trusts; improvement of transparency in information on beneficial ownership of companies and trusts; improvement of control over transactions involving high-risk third countries; providing extended powers to the European Union Financial Intelligence Units (FIU), especially in terms of free access to centralized registries of bank accounts and facilitating cooperation with national registries of Member States; preventing the risks of financing terrorism and money laundering when using

anonymous prepaid cards and virtual currencies; protection of informers, who report money laundering, including the right to anonymity.

Some ways to regulate offshore flows include the following:

1. To conclude agreements on cooperation and exchange of information between countries with offshore zones and non-offshore countries.
2. To include countries in the so-called "black" and "grey" lists of offshore jurisdictions (including in such a list entails various restrictions by non-offshore countries' regulators). The main criterion for including countries in such lists is the adoption of requirements for the disclosure of confidential information regarding any tax issues, its tax transparency, willingness to join the BEPS plan and the exchange of information. Thus, in 2016, the OECD included Costa Rica, Uruguay, Labuan and the Philippines in the blacklist. According to FATF information, such countries are Iran and the DPRK.

As of the end of 2017, the European Union published a "black list" (17 countries), which included American Samoa, Barbados, Bahrain, Grenada, Guam, Macao (PRC), Marshall Islands, Mongolia, Namibia, UAE, Palau, Panama, Samoa, Saint Lucia, Trinidad and Tobago, Tunisia, South Korea. Meanwhile, 47 countries and territories, including "classical" tax-free offshore (Belize, Bermuda, Cayman, Isle of Man, Seychelles, etc.) fell into the grey list.

3. To provide special restrictive measures, in particular, legislation on the taxation of dividends received by residents from controlled foreign corporations.

Therefore, it can be argued that offshore territories such as Cayman Islands, Panama, Tunisia, Seychelles and others plan to disclose the names of all nominee directors and managers of offshore companies. For example, Belize obliged foreign beneficiaries to hold innominate shares at the registrars. Meanwhile, the United States and other developed countries use many administrative regulations, strengthening the requirements for banks in terms of opening new accounts of offshore companies and control over the transactions of these suspect companies.

In order to regulate offshore activities, the BEPS (Base Erosion and Profit Shifting) Project, developed by the OECD with the active support of the G20 countries, has been introduced, the so-called Action Plan to address the problem of the tax base erosion and profit shifting. The content of this project as the main criterion for assigning any state to the "black list" is international cooperation to counter offshore processes, further recommendations for national authorities and their further implementation in the legislation of the countries. Any country ready to implement or create its own internal rules for regulating offshore operations can enter this project. The main areas of the Plan implementation are solving tax challenges and the peculiarities of taxation the digital economy; neutralization of so-called "hybrid schemes"; countering tax base erosion through the payment of interest and other financial transactions; general countering "harmful tax practices", considering the issue of transparency and substance; prevention of abusing the provisions of the agreements on the elimination of double taxation; prevention of schemes of artificial avoidance of the "permanent establishment" status; development of transfer pricing guidance for intangibles and transfer pricing in terms of risks and capital; development of transfer pricing guidance for other high-risk transactions; development of methods for collecting and analysing information on tax base erosion and profits shifting; introduction of rules for disclosure of "methods of aggressive tax planning"; optimization of transfer pricing documentation and accurate reporting; development and improvement of dispute resolution mechanisms on tax issues; development of a comprehensive multilateral convention on international taxation to modify ongoing tax treaties between countries (Plan BEPS).

The implication and scale of the world economy's offshore tendency is also evidenced by the information provided by the State Statistics Service (as of July 1, 2018), which states that the largest investment in the private sector of Ukraine came from Cyprus, up to 9.18 billion USD, 28.2% of total revenues for the 6 months of this year.

The number of foreign direct investments is 32.6 billion USD. The list of such countries includes Cyprus, the Netherlands, which share of the total investment is up to 21%, Germany – up to 5.3%, Switzerland – up to 4.7%, the British Virgin Islands – up to 4.1%.

Therefore, the greatest threat to the functioning of offshore centres and offshore zones is precisely in the privileges and preferences that these territories provide, such as: 1) the low level of taxation in offshore zones undermines the fiscal base of countries, residents of which use offshore services. According to the most conservative evaluations, the budgets of all countries of the world are deprived of at least 3 trillion USD hidden in offshore per year; 2) laundering illegally obtained funds contributes to increase of crime in all its manifestations, such as drug trafficking, trafficking in human beings, terrorist financing, and white-collar crime. Offshore centres and zones stimulate the shadowing of the economy and the expansion of international organized economic crime; 3) due to weak regulation of offshore financial operations, the risk of uncontrolled flows of so-called hot money increases, destabilizing the global financial system; 4) harmful tax competition, taking profits from onshore countries to create an element of instability in the global economy and finances owing to high potential accumulation of capital in offshore zones, especially speculative ones; 5) contribution to unstable trends in the world economy and the financial

system due to the high potential accumulation of capital in offshore areas; 6) stimulation of negative social and economic situation in donor countries; 7) intensification of capital withdrawals, leading to exacerbation of the shadow economy, and reduction of social and industrial infrastructure development; 8) granting unjustified privileges and preferences to individual companies, leading to unfair competitive conditions for medium-sized businesses.

Despite a number of negative aspects of doing business through offshore zones and offshore financial centres, this scheme has enough advantages, such as: 1) activating cross-border financial flows and accelerating the circulation of financial assets internationally; 2) stimulating financial flows and creating conditions for diversification of investments; 3) increasing access to loans and better capital transformation, the incentive to reduce the level of tax pressure, which causes deepening of international financial flows; 4) reducing the risk of expropriation and ensuring protection of property rights, which, in turn, can activate economic growth, primarily in donor countries, promoting the prosperity of those states where offshore zones are located.

This contributes to the more harmonious development of the global economy in general, the competitiveness of companies at the national and global levels through the use of more flexible development strategies.

We support the viewpoint of Yu. P. Hrihorieva, that the main reasons for the withdrawal of capital offshore are the unfavourable internal environment for doing business, corruption, high exchange risks, business criminalization, and imperfect tax and currency legislation (Hryhorieva, 2016).

3. Conclusions

Therefore, the activity of offshore centres and offshore zones in general is very negative for the development of the world economy, but primarily offshore territories are an advantageous place to hide and withdraw illegally proceeds from illegitimate activity, in particular, international criminal activity. A step-by-step study of offshore activities enables to avoid financial risks at an early stage of doing business, to improve the situation on the domestic market for developing countries; in addition, an analysis of the shortcomings in the work of offshore companies will improve the legislation of countries in terms of exchange legislation. The main area of countering tax base erosion and profit shifting, as well as money laundering prevention, should be the urgent implementation of the EU Fifth Directive 2015/849 to enhance transparency in identifying true beneficiaries of offshore companies and trusts' owners, under open access to the registers of beneficial owners of legal entities and trust registered in all EU Member States.

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ORGANIZATIONAL ASPECTS OF FISCAL AUTHORITIES IN UKRAINE AND FOREIGN COUNTRIES: COMPARATIVE ANALYSIS

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Abstract. *The aim of the article* is a comparative legal study of the organizational aspects of fiscal authorities in Ukraine and in some foreign countries and so to determine ways to improve domestic legislation in this area. *The subject of the study* is the domestic and foreign experience of the structure and activity of fiscal authorities in such countries as the United States, the UK, France, the Republic of Latvia, the Republic of Belarus and Kazakhstan. *Methodology.* The study is based on the use of general scientific and special scientific methods and techniques of scientific knowledge. The historical method enabled to study the origin and formation of fiscal authorities in Ukraine. Analysis and synthesis enabled to interrogate the fiscal system of Ukraine and some foreign countries as a complex legal phenomenon, defining its essence, characteristics, and targets. The method of the system approach enabled to determine the place of individual fiscal authorities in the financial system of the country, to analyse their main responsibilities, functions and areas of activity. The comparative legal method enabled to analyse the experience of the organization and activities of fiscal authorities in foreign countries, as well as to define the ways of its implementation in the national legal system. *The results* of the study revealed that for today the experience of Ukraine in the organization of activity of fiscal authorities is rather progressive and modern, and the national fiscal system is characterized by consolidation of powers in coordinating and controlling taxation and customs, which defines progressiveness of our country. *Practical implications.* The positive experience of the fiscal organization in foreign countries suggests the expediency of including national fiscal authorities in a single centralized system of executive power, through the creation of a separate ministry. This will enable not only to improve the efficiency of generating the state budget but also in the future will lead to overcoming the gap between the tax-customs policy and its application results. *Relevance/originality.* A comparative analysis of the organizational aspects of fiscal authorities in foreign countries is the basis for developing priority areas for improving the fiscal system of Ukraine, identifying gaps in its work, as well as introducing in the activity of fiscal bodies the newest methods that can increase their level and bring them into line with international standards.

Key words: fiscal authorities, taxation, customs, foreign experience.

JEL Classification: P34, H21

1. Introduction

The welfare of any state depends on many factors, for example, the state budget is a source of accumulated financial resources which are means for the state, as the embodiment of the supreme perfect social formation, to secure its existence. Therefore, one of the key factors is the process of generating the state budget. The special official agencies, such as fiscal authorities are responsible for this activity. For that reason, the legal status and organizational aspects of the work of the latter are of particular interest, as the study of their functioning specifics will improve the professional performance of the fiscal authorities, and so will directly affect the level of state financial interest protection.

Considering the current objectives of our state, such as the active integration into the world community, the elaboration of a strategy for fiscal consolidation involve studying the organizational matters of similar state department functioning in other countries and comparing them with national realities. From this perspective, the primary areas of Ukraine's fiscal policy improvement can be figured out, the gaps in its work that require "regulatory filling" can be identified, as well as the most recent methods can be introduced in the activities of fiscal authorities to increase their level and bring into line with the international organizational standards.

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Both domestic and foreign scientists analysed the legal status of the fiscal bodies, as well as their structural features. For example, the issues of historical development and the formation of national fiscal bodies were considered in the works of V. T. Belous, O. O. Bandurka, V. I. Poliukhovych, V. K. Shkarupa, L. M. Kasianenko and others. The theoretical legal aspects of fiscal authority functioning were covered by V. H. Demianchyshyn, M. P. Kucheriavenko, Ye. S. Vilkova, S. A. Bakanova, V. V. Labotskyi, S. M. Popov, O. H. Riabchuk, O. P. Fedotov and others. Organizational-legal aspects of the fiscal authority of foreign countries were reflected by O. B. Puhachenko, O. D. Oliinyk, D. H. Muliavka, N. P. Flisak, Ye. S. Khoroshaieva, and others. However, a qualitative comparative analysis of organizational aspects of fiscal authorities of Ukraine and foreign countries has not been carried out to date. The legal literature reveals the essence of this issue only superficially.

2. Main material

It should be noted that etymologically the term fiscal, from which the concept of fiscal service derives, has a wide range of definitions. Today, the dictionary literature represents the following interpretations:
1) a taleteller, an informer;
2) a spy;
3) an official who deals with state affairs;
4) an official who oversees the implementation of laws, in particular in the financial sector (Chudinov, 1894; Mikhelson, 1866; Ozhegov, Shvedov, 2006).

According to another interpretation, the term "fiscal" derives from the Latin word "fiscus," that is, a cashier, the treasury. It is used in public finances to identify either officials or sources of the flow of money into budgets (Marynchak, 2017).

Therefore, based on linguistic tendencies, fiscals or fiscal authorities are a system of state bodies and their officials that function in the sphere of generating the state budget and its monitoring. In other words, it is the branch of charging various types of duties and taxes. It is the subject of the activities of domestic fiscal authorities and institutions of foreign countries.

To begin with, for a comparative analysis, the organizational aspects of the national fiscal bodies should be covered. Historically, fiscal authorities in Ukraine traced its origin back to the 18th century. In this period, Peter I issued his Decree "On Fiscals," which introduced in the Russian Empire (which at that time included the territory of Ukraine) the position of fiscals (civil servants), who controlled and supervised over the courts and the state treasury (Tikhii, 2006; Pozharskii, 2004).

An important milestone in the development of fiscal authorities was the State Chancellery, created by Empress Catherine II as an independent financial institution. In the governorates, it was headed by vice governors, the second-highest ranking officials in the system of local government, indicating the excellent status of the newly formed body. In the Institution to Administer the Governorates as of November 7, 1775, Chapter IX "On the activities of the State Treasury Chamber," the duties of the Treasury Chamber included control over the timeliness, completeness and correctness of collection of incomes, ensuring their storage and delivery. The inadmissibility of exceeding powers by it or the interference in its activities were provided (Dzisiak, 2001; Smolkin, 1990).

During the Soviet period, in Ukraine, centralized fiscal authorities were represented by two separate departments that carried out functions related to the generating of the state budget, namely the State Tax Service of the USSR, subordinated to the Ministry of Finance of the USSR and the Ministry of Finance of the Union Republics, and the Main Directorate of the State Customs Control under the Council of Ministers of the USSR (Oliinyk, 2014; Berezhniuk, 2009).

The current State Fiscal Service of Ukraine was established by the Resolution of the Cabinet of Ministers of Ukraine no. 236 as of May 21, 2014, which approved the Regulations on the State Fiscal Service of Ukraine (hereinafter – the SFS). In accordance with this legal regulation, the SFS is a central executive body, directed and coordinated by the Cabinet of Ministers of Ukraine via the Minister of Finance, implementing state tax policy, state customs policy, the state policy on administering the single contribution to the compulsory state social insurance (hereinafter referred to as a single contribution), state policy on combating offenses in the application of tax, customs legislation, as well as legislation on payment of a single contribution (The Cabinet of Ministers of Ukraine, 2014). In its activities, the SFS is guided by the Constitution and laws of Ukraine, decrees of the President of Ukraine and resolutions of the Verkhovna Rada of Ukraine, adopted in accordance with the Constitution and laws of Ukraine, acts of the Cabinet of Ministers of Ukraine, other legislative acts (The Cabinet of Ministers of Ukraine, 2014).

It should be noted that the SFS is subject to implement a large range of objectives, the main of which are defined in the Regulation:
1) realization of the state tax policy and policy on state customs, the state policy on combating offenses during the application of tax, customs legislation; control, within the limits of authorities provided for by law, for revenues to the budgets and state target funds of taxes and fees; the state policy on monitoring the production and circulation of alcohol, alcoholic beverages and tobacco products, the state policy on administering a single contribution, as well as combating offenses in the application of legislation on payment of a single contribution; the state policy on monitoring the timely execution of settlements in foreign currency within the

statutory period; compliance with the order of cash settlements for goods (services), as well as control over licenses for economic activities subject to licensing in accordance with the law, commercial patents;
2) making proposals to the Minister of Finance for ensuring the formation of:
- the state tax policy;
- the state policy on state customs;
- the state policy on combating offenses during the application of tax, customs legislation, monitor receipts to budgets and state trust funds of taxes and duties, customs and other payments;
- the state policy on monitoring the production and circulation of alcohol, alcoholic beverages and tobacco products;
- the state policy on administering a single contribution, as well as the combating violations in the application of legislation on payment of a single contribution;
- the state policy on monitoring the timely execution of settlements in foreign currency within the statutory period; compliance with the order of cash settlements for goods (services), as well as control over licenses for economic activities subject to licensing in accordance with the law, commercial patents (The Cabinet of Ministers of Ukraine, 2014).

The scientific views of the legal experts regarding the legal status of the SFS of Ukraine should be considered. In general, the creation of this institution and its performance are perceived as improvement of the state financial management. For example, in her scientific works, S.S. Popova has repeatedly emphasized that the formation of a civil and democratic society in our country is interrelated with the increase in the efficiency of public authorities, in particular, the state tax and customs service, since the performance of tax and customs officials affects largely the conditions for economic activities in the state and financial budgetary support for the functioning of the entire state apparatus (Popova, 2015).

According to O.O. Briginets, the SFS of Ukraine is the main instrument in ensuring the financial security of the state and a guiding element for generating the state budget of Ukraine, due to its legal status of a central executive authority, which implements the state economic policy and performs consolidated functions of tax and social payment collection (Bryhinets, 2016).

Therefore, the fiscal authorities of Ukraine are an important element of public administration, as well as an instrument for providing financial revenues to the state budget. Their activities are centralized since the central executive authorities coordinate them. In addition, the characteristic feature of the SFS of Ukraine is the combination of the several services' areas (customs and tax) in the framework of its activities. Consolidation of functions of generating the state budget within a single body enables to improve the control over budget revenues, to protect effectively the data of legal relations from violations, as well as to ensure a stable financial system of the state in total.

Furthermore, for comparative analysis, the work of fiscal bodies in foreign countries should be studied. Primarily, the organizational aspects of fiscal agencies in the United States should be considered, because this country has one of the most powerful economies in the world, which proves the effectiveness of the internal mechanism for collecting taxes, duties and other government-determined official charges. Contrasting to Ukraine, in the United States of America, the fiscal authorities are represented by two separate departments.

With regard to the tax administration bodies, the US Federal Tax and Financial Control Service is the core of this system. The main element in its structure is the Internal Revenue Service (hereinafter referred to as the IRS), which is subordinated to the Department of the Treasury. The organizational structure of the IRS is based not on types of taxes, but on the functional features of the taxation system, that is, the structure is functional. The main structural divisions of the IRS are a tax return processing service, a tax return auditing service, a tax collection service, a criminal investigation service, a taxpayer support service, an international department, an information and computer technology department, a personnel department (Proskura, 2012).

The US Internal Revenue Service should meet three main objectives, such as:
1) to enhance voluntary compliance with tax laws;
2) to meet the interests of taxpayers and reduce the administrative burden on them as much as possible;
3) to enable the tax service to function better by improving the tax system and staff development, that is, ensuring the efficiency of the service by the quality of its performance and high qualifications of employees (Danilov, Flissak).

In addition, the US Internal Revenue Service is the central but not the only US tax authority that directly implements the fiscal function of the state. In the USA, as a federal state, the fiscal system has three levels:
- at the upper level, the IRS controls compliance with tax laws and collects federal taxes;
- at the middle level, state tax offices, revenue departments collect taxes and charges introduced by the state legislatures; revenue departments that are headed by state executive heads, that is, governors, consist of units that solve the issues of identification and registration of taxpayers, tax returns and remittances, calculations of taxes, their enforcement, assistance to taxpayers;
- at the lower level, local tax authorities collect taxes introduced by local authorities (Encyclopaedia Britannica; Bandurka, 2007).

The "customs" part of the US fiscal system is represented by the US Bureau of Customs and Border Protection, one of the largest and most comprehensive

agencies of the US Department of Homeland Security, which is in charge of preventing terrorism and terrorist weapons, regulating and facilitating international trade, charging customs duties, and ensuring US Trade Legislation (Chentsov, Taranova, 2009).

The main functions of the Bureau include:
- law enforcement, which involves countering terrorism and illegal migration;
- protection of the national economy;
- protection of the environment and public health;
- preservation of cultural heritage;
- protection of the state border;
- facilitation of legitimate international trade and tourism (Savarets, 2017).

It should be noted that the structural organization of the service consists of 5 divisions: Office of Field Operations, which performs functions of customs and passport control at checkpoints and customs control zones; Border Patrol, which performs its functions outside the border crossing points; Air and Marine Operations; as well as investigative Operations Support; Trade; and Enterprise service (Savarets, 2017).

The experience of Great Britain, another financially well-developed country, is worth considering. The organizational model of fiscal authorities in this state is similar to the national one. Her Majesty's Revenue & Customs serves as the key agency in this area, a government agency "without a ministerial portfolio", created by the Parliament Act in 2005 as a new body replacing the Internal Revenue Service and Customs and Excise (Savarets, 2017).

In accordance with its legal status, the UK's Revenue and Customs Service is the main tax and customs authority in the country that administers and enforces Statutory Payments in favour of the state, supports the stability of the tax system, as well as the prevention and termination of offenses in a certain industry. The main tasks of the service are:
- to safeguard the flow of money to the Exchequer;
- to make sure that money is available to fund the UK's public services;
- to facilitate legitimate international trade;
- to protect the UK's fiscal and economic security;
- to administer Statutory Payments, taxes and charges;
- to administer social payments, etc. (HM Revenue & Customs: About us).

The organization of the authority includes approximately 70 different departments and services, some of which are the Department of Customs Transformation, the Customs Department, the Department of Indirect Tax Control, the Department of Financial Operations, etc. (HM Revenue & Customs: About us).

In France, a wide range of fiscal functions is also consolidated within a single body, the State Service for Customs and Indirect Taxes, which is subordinated to the Ministry of State Accounts. The Service has three main objectives:

1) to counteract fraud in the financial and tax sector;
2) an economic mission, that is, to make sure that the companies operating in France meet European trade standards;
3) to administer and collect taxes, statutory payments and duties (Les multiples missions de la douane française).

In the Republic of Latvia, fiscal authorities are represented by the State Revenue Service, formed by merging the State Financial Inspection and the Customs Department. It is a public authority directly subordinate to the Minister of Finance. The State Revenue Service of Latvia is responsible for the accounting of tax payments and taxpayers, administering state taxes, levies and other obligatory payments in Latvia, as well as administering taxes, levies and other mandatory payments to the EU budget and implementing customs policy (On State revenue Service).

The SRS of Latvia is one-levelled organization. It is represented by the central apparatus, the State Revenue Service and the central customer service and customs control points. The Service is headed by a Director General appointed by the Minister of Finance for a term of five years. The SRS structure has various departments, including Finance Department, Financial Police Department, National Customs Board, Customs Police Department, Tax Control Department, National Tax Board, Department of Legal Consultant, etc. (On State revenue Service; Oliinyk, Muliavka, 2016).

A characteristic feature of the fiscal authorities of Latvia is the use of the newest methods of management in their work. In particular, these include the sectoral approach to tax administration, focused on specific sectors of risk. This means that in case of identification of possible non-fulfilment of tax responsibilities, primarily preventive measures of tax administration are applied to taxpayers of this specific economic sector in order to ensure that their tax responsibilities will be fulfilled over time. Only in case of failure to achieve the strategic result, fiscal authorities use tax control (Oliinyk, Muliavka, 2016).

The foreign experience of the fiscal organization in the Italian Republic should be analysed, though the system of these bodies is rather cumbersome and ramified. O. M. Iliushyk, M. O. Pishchanska and M. Khainttsen argue that the experience of Italy is interesting, because the administration of taxes is engaged in three independent executive authorities, such as: first, the tax authorities themselves (Agenzia delle Entrate); second, the customs authorities (Agenzia delle Dogane) responsible for customs duties, as well as excise duties and VAT paid for the import of goods and services; third, the agency responsible for real estate and cadastral accounts (Agenzia del Territorio); in addition, some functions of tax administration are transferred to other bodies and organizations. For example, state organizations (such as Equitalia spa) are responsible

for enforcement of paying legally imposed taxes, the special tax police (Guardia di Finanza) bears down on avoidance and evasion (Khainttsen, 2010; Iliushyk, Pishchanska, 2018).

Furthermore, in analysing the organizational aspects of foreign fiscal authorities, the specificities of the structure of similar departments of not only Western and European countries but also of the post-Soviet states should be considered because their legal systems have many common features with the national one.

For example, the fiscal system of one of Ukraine's closest neighbour, the Republic of Belarus, is represented by two separate authorities. For example, the Ministry of Taxes and Duties is the central body of the state administration, authorized:

- to carry out the state policy and to regulate and manage taxation;
- to exercise within its competence state regulation to ensure compliance with legislation on the production and circulation of alcoholic, inedible alcohol-containing products, inedible ethyl alcohol and tobacco products, circulation of tobacco raw materials;
- to implement state policy in gambling, including licensing such activities, as well as coordinating the republican bodies of state administration, local executive and regulatory bodies in gambling (O Ministerstve; Polozhenie o Ministerstve po nalogam i sboram Respubliki Belarus).

The Ministry has diverse responsibilities. For example, according to the legislation of the Republic of Belarus, the main objectives of this organization are:

- to ensure, within the limits of the competence, compliance with the tax legislation, as well as economic activity and licensing legislation, etc.;
- accounting for total taxes and other obligatory payments due and actually paid;
- to develop proposals on tax regulation and management;
- to implement currency control;
- to organize tax inspections, etc. (O Ministerstve; Polozhenie o Ministerstve po nalogam i sboram Respubliki Belarus).

In state regulation of customs affairs, in accordance with the legislation of the country, the State Customs Committee of the Republic of Belarus is a republican government body that implements the state customs policy, as well as directly administers the customs. The Committee is subordinate to the Council of Ministers of the Republic of Belarus, and on specific issues to the President of the country. The main responsibilities of the Committee are:

- to carry out the state customs policy, direct management of the customs and to coordinate other state bodies and other organizations in this area;
- to ensure, within the limits of its competence, economic security of the Republic of Belarus, to protect its economic interests;
- to develop and apply methods and means ensuring compliance with customs legislation;
- to facilitate the acceleration of commodity circulation when importing goods into the Republic of Belarus and exporting goods from the Republic of Belarus through the customs border of the Eurasian Economic Union in the Republic of Belarus;
- to counteract smuggling and other crimes, which inquiries are within the competence of the customs authorities, administrative offenses, which are the subject of the competence of the customs authorities;
- to ensure the fulfilment of the international obligations of the Republic of Belarus relating to customs matters (O nekotorykh voprosakh tamozhennykh organov).

In the Republic of Kazakhstan, the organizational principles of fiscal authority activities are characterized by many specific features. In this country, the departments function based on centralization. Yes, fiscal authorities are a part of the Ministry of Finance of the Republic of Kazakhstan. The objective of this body is also management and inter-sectoral coordination in budget planning, budget execution, accounting and financial reporting, budget accounting and budget reporting on the implementation of the republican budget and, within its competence, of local budgets, the National Fund of the Republic of Kazakhstan; in public procurements; in management of republican property; state regulation in rehabilitation and bankruptcy, counteraction to the legalization (laundering) of proceeds from crime, and financing of terrorism; the organization and implementation of single public procurement for budget programs or goods, works, services, determined by the authorized body, as well as the participation in the formation and implementation of tax policy and policy on customs, as well as in the prevention, detection, termination, disclosure, and investigation of economic and financial crimes, offenses within the limits provided for in legislation (O nekotorykh voprosakh Ministerstva finansov Respubliki Kazakhstan).

The structural element of the Ministry is the State Revenue Committee. In accordance with the legislation of Kazakhstan, the latter is an agency which, within the competence of the central executive body, exercises regulatory, implementing and controlling functions in customs to ensure the completeness and timeliness of tax, customs and other mandatory payments to the budget, calculations, deductions, transfer of social payments, state regulation of production, and circulation of ethyl alcohol, alcoholic beverages and tobacco products, circulation of certain types of petroleum products and biofuels, state regulation and control for rehabilitation and bankruptcy, participation in the implementation of tax policy and customs policy, participation in the development

and implementation of customs regulation, in the Republic of Kazakhstan, of goods movement across the customs border of the Eurasian Economic Union, their transportation on the single customs territory of the Eurasian Economic Union under customs control, temporary storage, customs declarations, release and use in accordance with customs procedures, customs control, power relations between state revenue bodies and persons exercising the rights to own, use and dispose of the specified goods within the limits stipulated by the legislation, as well as functions for the prevention, detection, termination, disclosure, and investigation of criminal and administrative offenses, which this body is charged for by the legislation of the Republic of Kazakhstan and other functions in accordance with the legislation of the Republic of Kazakhstan (Ob utverzhdenii Polozheniia o Komitete gosudarstvennykh dokhodov Ministerstva finansov Respubliki Kazakhstan).

3. Conclusions

Therefore, for today the experience of Ukraine in the organization of fiscal authorities is quite progressive and modern. The national fiscal system is characterized by the consolidation of powers in coordinating and controlling taxation and customs, which defines the progressiveness of our country. Analysis of foreign experience revealed that this organizational model of fiscal authorities is typical of such developed countries as Latvia, the UK, France, and Kazakhstan.

However, the positive experience of the latter suggests the expediency of including fiscal authorities in the centralized system of executive power by creating a separate ministry. This approach, in our opinion, not only will enable to improve the efficiency of generating the state budget but also in the future will lead to overcoming the gap between the tax-customs policy and its application results, because the latter will be designed and implemented by a single, competent state authority.

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METHODOLOGICAL FRAMEWORKS FOR STATE REGULATION OF HEALTH CARE SYSTEM IN THE POST-SOVIET COUNTRIES

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Abstract. The main *purpose* of the paper is to analyse the methodological framework for state regulation and public administration of the health care sector in the post-Soviet countries (the case of Ukraine). *Methodology.* This study combines economic, legal, and managerial analysis of Ukrainian healthcare system. In this study, a complex of the general scientific and special research methods was used to achieve the goal of the study. The method of historical and logical analysis of the literature was used. The functional and structural analysis was used with the purpose to research the state regulation of public relations in health care. Methods of comparative and statistical analysis and their synthesis were used to study the dynamics of development of legal basis in the health care sector. Method of summarization was used to make conclusions and recommendations for optimizing state regulation policy in Ukrainian health care. Scientific works of national and foreign scientists in the sphere of state regulation of health care sphere, national and international legal documents were used as the informational basis for the conducted research. *Findings.* In the paper, international basis for the formation of the Ukrainian state regulation mechanism is defined. The conceptual basis of state regulation mechanism is analysed. The difference between state regulation and public administration in healthcare is determined. Components of the healthcare market are allocated in order to analyse certain methods of their regulation. Main direct and indirect administrative and economic methods of state regulation in different medical markets are analysed. The framework for medical reformation is determined. *Practical implications.* The results of this study form the theoretical and methodological basis for practical improvement of the state regulation system of public relations in Ukrainian health care.

Key words: health care system, state regulation, economic and legal basis, market relations in healthcare.

JEL Classification: I18, I15

1. Introduction

The Constitution of Ukraine considers human being, the right to life and health, right to honour and a good reputation, right to the inviolability of private and family life, right to security as one of the highest values of Ukrainian legal system and a primary assumption for human vital activity (The Constitution of Ukraine). Among other rights, provided by the Constitution, we can highlight the right to medical care as the one, which guarantees human physical existence, and which is essential for maintenance and improvement of Ukrainian nation's health.

State regulation of medical activity in Ukraine is an inseparable part of state policy and public administration in the healthcare field. Nevertheless, the legal framework in the field of health as a key tool of public administration has not been still separated as a legal institute in Ukraine. But the systems analysis of a number of scientific works, regarding the formation and development of the human right to health care, demonstrates the existence of effective attempts to make Ukrainian community responsible for its health.

This research is urgent because of the existence of deliberative issues regarding the state regulation of public relations in the healthcare field not only in the national but also in the international science. Thus, it is necessary to solve some social contradictions. These contradictions in the public administration activity deepen understanding of the objective patterns for its functioning, development, and improvement, and have a crucial impact on the adequate interpretation of the essence of managerial phenomena and processes in the healthcare field.

The goal of this paper is to analyse the methodological framework for state regulation and public administration of the Ukrainian health care sector. To meet this goal, the following tasks have been put before the researches:

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1) to define international frameworks as the basis for state policy formation in health care,
2) to determine the conceptual basis for state regulation and public administration in the healthcare field;
3) to analyse the system of state regulation methods in Ukrainian health care;
4) to propose the directions for medical reformation in Ukraine.

The issues related to defining the relationships between state regulation of medical activity and the level of lawyer in the healthcare, managerial and medical staffs' training is still poor researched. Methodological, organizational, and legal frameworks for medical state regulation and developing the legal instruments for transplantation, euthanasia, reproductive medicine and so on require further improvement.

2. Methodology

This study combines economic, legal, and managerial analysis of Ukrainian healthcare system. In this study, a complex of general scientific and special research methods was used to achieve the goal of the study. The method of historical and logical analysis of the literature was applied. The functional and structural analysis was used with the purpose to research the state regulation of public relations in health care. Methods of comparative and statistical analysis and their synthesis were used to study the dynamics of development of legal basis in the health care sector. Method of summarization was used to make conclusions and recommendations for optimizing state regulation policy in Ukrainian health care.

Scientific works of national scientists in the sphere of state regulation and public administration of the Ukrainian health care sphere, national and international legal documents were used as the informational basis for the conducted study.

3. International frameworks for state policy formation in health care

Formation of Ukrainian state policy in the health care is characterized by the general patterns, which are universal for most countries. The law of Ukraine "Fundamentals of the Legislation of Ukraine on Health Care" dated November 19, 1992 (No 2801-XII, revised on June 10, 2018) (Law of Ukraine Fundamentals...) determines that the state and community guarantee the priority of health care in the country's activity. In the formation of state policy, the principles of international treaties, in which Ukraine participates, have to be used.

European Code of Social Security (Strasburg, 1962) (European Code of Social Security Treaty) and Charter on Social Rights (Havana, 1982) (Charter on Social Rights) are the policy documents, which are the main for the most countries in developing the state policy in the health care field. The main frameworks for the formation of healthcare state policy and strategy were declared at the first International Conference on Health Promotion (Canada, 1986) and are known as the Ottawa Charter for Health Promotion (Charter adopted at an international conference on health promotion). It provides for the implementation of a new managerial technology in the healthcare field, based on the cross-sectoral approach.

At this conference, it was determined that health determinants are biologically and socially resulted and programmed, and the state policy on health promotion must combine diverse but complementary approaches including legislation, fiscal measures, taxation and organizational change and requires the identification of obstacles to the adoption of healthy public policies in non-health sectors, and ways of removing them (Charter adopted at an international conference on health promotion).

The following directions must be realized, in accordance with the Charter for Health Promotion: (1) to build the health policy, based on a cross-sectoral approach; (2) to create supportive environment, based on socio-ecological approach to health; (3) to strengthen community actions in setting priorities, making decisions, planning strategies, and implementing them to achieve better health; (4) to develop personal and social skills through providing information, education for health, and enhancing life skills; (5) to reorient health system for disease prevention and primary medical care (Charter adopted at an international conference on health promotion).

Thus, the main goals, which meet this Charter and are crucial for the development of the healthcare sector worldwide, are the following:
1) to move towards the healthy public policy and to advocate a clear political commitment to health and equity in all sectors;
2) to counteract the pressures towards harmful products, resource depletion, unhealthy living conditions and environments, and bad nutrition; and to focus attention on public health issues such as pollution, occupational hazards, housing and settlements;
3) to respond to the health gap within and between societies and to tackle the inequities in health produced by the rules and practices of these societies;
4) to acknowledge people as the main health resource; to support and enable them through financial and other means, and to accept the community as the essential voice in matters of its health, living conditions, and well-being;
5) to reorient health services and their resources towards the promotion of health;
6) to recognize health and its maintenance as a major social investment and challenge (Charter adopted at an international conference on health promotion).

The right to health (Article 12) was defined in General Comment 14 of the Committee on Economic, Social and Cultural Rights – a committee of Independent Experts, responsible for overseeing adherence to the Covenant (General Comment).

All above-mentioned and other international Charters and Declarations form the next core elements of a human right to health. They are (1) progressive realization using maximum available resources; and (2) non-retrogression, i.e., the state should not allow the existing protection of the right to deteriorate unless considering all the options, assessing the impact and fully using its maximum available resources.

The main features of the right to health are its availability, accessibility, acceptability, and quality.

Thus, worldwide, the human right to health must be met by the national state healthcare programs and policy on national and regional levels by looking at underlying determinants of health as a part of a comprehensive approach to health and human rights (Human rights and health).

4. The conceptual basis for state regulation of health care

Legal science defines the "state regulation" concept as the State's exercise of a set of activities (organizational, legal, economic and so on) in the field of social, economic, political, cultural, and other public processes with the purpose to harmonize them, to lay down general rules and norms of social behaviour, and to prevent any adverse effects in the society (Shemchuchenko, 1999).

Public administration and state regulation are two separate types of state activity. Public administration supposes a direct managerial impact on the management objects by means of administrative powers and methods, characterized by the directive guidelines and instructions for their performance.

State regulation supposes only imposing limits and bounds for facilities, under which they could freely operate. State regulation, unlike the public administration, is directed not only to the management object but also to the environment. Therefore, state regulation is wider in power influence, then public administration.

The state regulation in the health care field supposes formation of general norms and rules for the realization of medical activity, i.e. medical care, responsibility for these following rules, the influence of the government and its authorities on the medical entities' activity. It must be based on the adequately formed strategy of the community development, state medical programs, medical standards and gears of their mandatory execution, state control and administration coercion. The government uses not only legal but also organizational, financial, personnel, and others tools.

Thus, the state regulation in the health care field must be based on the national budget, tax, credit, investment, monetary, financial, scientific, technical policies, i.e. the regulation has to be provided through regulations, state budget, state control, tax system, standards, customs tariffs, and prioritization.

Therefore, one of the main tasks of the socially oriented country is a balance between citizens' interests in the qualitative and highly qualified medical care and its providers, which are the medical entities and employees. So, on the one hand, the government must satisfy the expectations and interests of its citizens in their right realization on the medical care, and on the other, satisfy the interests of medical providers. At the same time, it must encourage providers to provide as much as possible qualitative services at low costs.

So, we can emphasize that the state regulation of health care is directed to the creation of favourable organizational and financial conditions for medical entities in market conditions. Thus, such a regulation does not suppose government intervention into organizational and vocational activity, except for cases specified by law.

The main goal of the state regulation in the health care field is strengthening of human health, preventive health care, providing the highly qualified medical care, improving the quality life, and preservation of the gene fund of Ukrainians.

The main tasks of state regulation in health care is (1) to impact on the development of the medical entities in all forms of property; (2) to control the quality level of medical services and medical care for solving social problems, related to health; (3) to introduce legislation ensuring equal conditions for the medical entities; (4) to implement strong demographic policy directed to increasing the fertility level and mortality reduction; (5) to expand access to medical assistance for population; (6) to ensure sanitary and epidemiologic well-being for population; (7) to provide the effective multi-channel financial system and to increase the state financial support in the health care field; (8) to encourage the population to healthy lifestyle; (9) to intensify the development of the medical and pharmaceutical industry, including medical appliance and medical items manufacturing, drug production and so on.

State regulation in healthcare has two main components, presented in Figure 1.

Objects of health state regulation are the specific relationships and phenomena, branches of medical and other types of activities in healthcare, system, territorial, branch, and functional subsystems of the Ukrainian health care sector. We can allocate two types of health state regulation's objects: (a) material and (b) intangible. To the first group, we can include medical entities, their staff, fixed capital, financial resources. To the second one, we can attribute work relations, relations between patients and staff of the medical entities, intellectual capital and so on. But the main object of such a regulation is human health and its status, which we can influence improving it.

The main subjects of health state regulation in Ukraine are the Verkhovna Rada of Ukraine, President of Ukraine, National Security Council, central executive authorities, among which is the Ministry of Health of Ukraine, and also local executive authorities (Hladun, 2007).

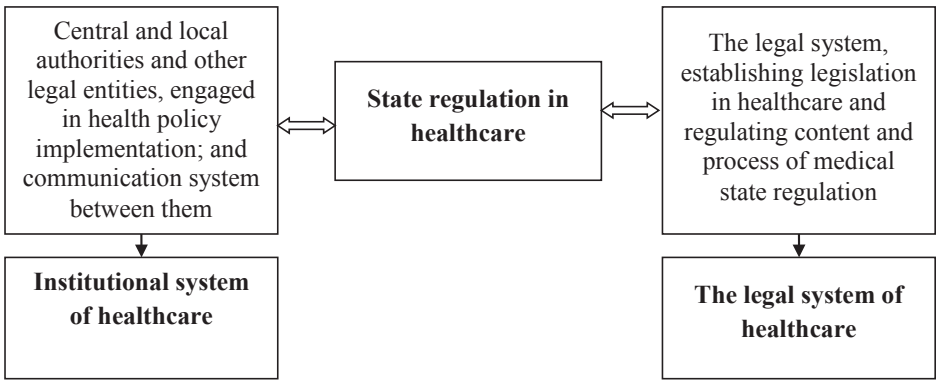

Figure 1. Components of state regulation in the health care field

5. Methods of state regulation in the healthcare field

Achieving the goals of state regulation of any socio-economic field is provided by a number of methods. Methods of state regulation are the ways of state influence on business, market infrastructure, a non-profit economic sector in order to create conditions for their effective functioning, considering directions of economic and social policy.

We can classify methods of state regulation by two attributes: by forms and means of influence.

According to means of influence, there are (a) administrative methods, based on the state authority, include prohibitory, permitting and coercion measures; (b) economical methods create particular conditions and guide the development of the socio-economic relations to the right way.

According to the forms of influence, there are (a) direct methods impact the market actors' functioning by means of administrative, legal, and economic tools of direct influence; (b) indirect methods impact the market actors' functioning by means of creating the particular economic conditions and environment, enforcing them to move to the certain direction; it is an influence on the economic interests.

Health care sector includes a number of interrelated markets, such as medical services market, the market for medical technologies and equipment, health insurance market, labour market, medical education market, pharmaceutical market, and financial market (Figure 2).

Thus, taking into consideration the general classification of the state regulation methods and structure of the healthcare market, we can identify the following groups:

1) according to means of state regulation, there are:
– tools, used in the context of administrative methods;
– tools, used in the context of economic methods;
2) according to the forms of state regulation, there are:
– direct methods;

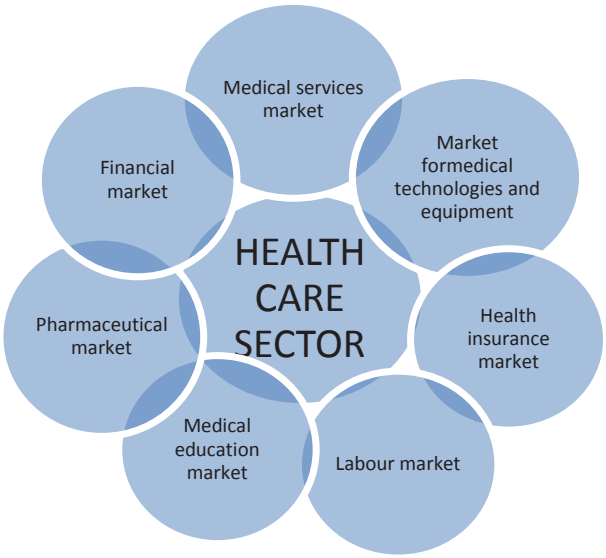

Figure 2. Structure of the healthcare market

– indirect methods;
3) according to the market of the healthcare sector, there are:
– tools, used for regulation of the medical services market;
– tools, used for regulation of medical technologies and equipment market;
– tools, used for regulation of the medical insurance market;
– tools, used for regulation of the labour market and the market for medical education;
– tools, used for regulation of the pharmaceutical market;
4) according to the instruments, used in the healthcare markets, there are:
– tools, used for increasing supply and medical services (goods) quality;
– tools, used for increasing effective demand for medical services and goods (Ivanov, Berezhna, 2014).

In Table 1, we have classified tools of state regulation in the Ukrainian healthcare market.

Table 1
Consolidated table of state regulation methods in the Ukrainian healthcare field

1. Medical services market			
Tools in the context of administrative methods (direct)	Tools in the context of economic methods		
	Tools in the context of direct economic methods	Tools in the context of indirect economic methods focused on encouraging	
		supply and medical services (goods) quality	effective demand for medical services and goods
- Licensing of medical activity; - Accrediting and registration of medical entities; - Standardization of medical services quality.	- State financial support for the healthcare sector.	- Exemption from profit taxes; - Exemption from land charges.	- Exemption from VAT for medical services; - Particular costs, related to healthcare inclusion to the expenses of income tax payer; - Medical goods' (services) cost exclusion from the calculation of the general month taxable income of income tax payer; - Medical goods' (services) cost inclusion to tax credit.
2. Market for medical equipment and technologies			
Tools in the context of administrative methods (direct)	Tools in the context of economic methods		
	Tools in the context of direct economic methods	Tools in the context of indirect economic methods focused on encouraging	
		supply and medical services (goods) quality	effective demand for medical services and goods
- Protection of intellectual property rights by means of patenting objects of intellectual property; - Registration and certification of medical equipment.	- Financial support for medical scientific researches; - Financial support for purchasing equipment.	–	- Exemption from an excise tax of sales transactions of cars for invalids; - Use of lower VAT rate at a level of 7% to operations related to delivery and import of medical items and/or medical equipment for clinical researches.
3. Pharmaceutical market			
Tools in the context of administrative methods (direct)	Tools in the context of economic methods		
	Tools in the context of direct economic methods	Tools in the context of indirect economic methods, focused on encouraging	
		supply and medical services (goods) quality	effective demand for medical services and goods
- Registration and standardization of medicines' quality and medical items; - Licensing of the production, wholesale and retail trade of medicines and medical items; - State price control for medicines and medical items.	- Financial support for medicines and medical items purchasing.	- Exemption from fee for the certain types of activity for apothecary, for delivery of the medicines and purchasing of the preferential business license (trade patent).	- Use of lower VAT rate at a level of 7% to operations related to delivery and import of medicines; - Duty-free for pharmaceutical production; - Use of lower VAT rate at a level of 7% to operations related to delivery and import of medicines for clinical researches.
4. Medical insurance market			
Tools in the context of administrative methods (direct)	Tools in the context of economic methods		
	Tools in the context of direct economic methods	Tools in the context of indirect economic methods focused on encouraging	
		supply and medical services (goods) quality	effective demand for medical services and goods
- Licensing of insurance activity.	- Functioning of the Fund of social insurance for labour accidents and professional diseases in Ukraine.	–	- Costs for health insurance inclusion to the total costs of the income tax payer.
5. Labour market and medical education market			
Tools in the context of administrative methods (direct)	Tools in the context of economic methods		
	Tools in the context of direct economic methods	Tools in the context of indirect economic methods focused on encouraging	
		supply and medical services (goods) quality	effective demand for medical services and goods
- Licensing and accreditation of educational establishments; - Standardization of the quality of educational services.	- Financial support for training, retraining, further training and remuneration of medical staff.	–	–

Thus, from Table 1 we see that the main tools used in all healthcare markets are administrative direct methods, such as licensing, accreditation, standardization and price control. The direct economic method is the financial support of different medical activities, e.g. medical scientific researches, education and training, purchase of medical equipment, medicines and so on. Indirect economic methods are represented by tax regulation policy.

So, we can argue that the ratio of direct administrative and economic methods in the Ukrainian state regulation system is 40% both; 15% is a ratio of indirect economic methods, directed to the effective demand for medical services and goods; and 5% is for indirect economic methods, directed to supply and medical services (goods) quality in the system of state regulation methods (Figure 3).

Analysis of the state regulation methods allows making a conclusion that state regulation is fragmented, leading to its improvement because the complex state regulation of all related healthcare markets is not provided. It complicates the process of market relations formation and reduces the effectiveness of medical reforms in Ukraine.

6. State regulation of market mechanisms in the healthcare field

The position that market relations in the healthcare sector cannot be spontaneous and not regulated, and the scope of market laws must be limited, is generally accepted. The healthcare, indeed, is the specific branch, which could not be fully oriented only on the market relations. The necessity of limitation of market relations in healthcare is due to its specificity. First of all, this is because of the humanitarian focus of medical activity, which is provided for the supremacy of the medical results over financial ones. And in this regard, the scope of market relations is limited. Humanity, fairness, and quality of medical care must be the requirement under any economic relations. Thus, research on the use of direct and indirect administrative and economic methods in the different markets of the healthcare sector presented above is urgent. In this way, the effectiveness of the healthcare sector should be accessed from the position of medical, social, economic, and financial activities. So we see that medical entities mostly act despite the economic calculations, principles, and their profitability. Thus, it is necessary to structure medical services, which can be or cannot be involved in market relations. From the other hand, the market relations in healthcare cannot exist per se, because of the position of the state as a monopolist. For what it's worth, we could not avoid the state regulation.

The following criterion could be defined in order to determine the spheres of state (non-market) medical segments: (1) ratio of expenditures on provision of free medical care with the expenses, which are transferred to the population in case of its absence; and (2) state's economic opportunities and welfare of population.

Therefore, to provide an effective healthcare system, a viable management mechanism in the healthcare field must be developed. It must combine:

– The centralized budget allocation of leading medical and educational medical centres;
– financing of the prevention medicine from the local budgets;
– financing of other types of medical care from the insurance funds;
– transition of some medical services on commercial (paid) base.

The shift of the healthcare sector to a market economy provides for the following changes in the medical business model:

1) To change the organizational and legal status of medical entities, i.e. their transformation to the independent legal entity with wide-ranging powers;
2) To change property forms of many medical entities in order to form the significant commercial sector of healthcare;
3) To change the nature of relations between the medical stakeholders from social and administrative towards economic ones;
4) The shift from the financing of medical entities towards financing medical care. This supposes

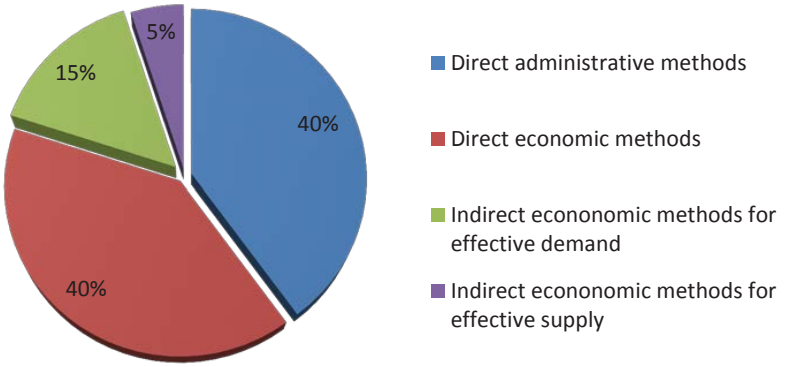

Figure 3. The ratio of methods in the general system of state regulation methods

identification of standard costing for particular diseases treatment. Thus, the main task of public health is to define expenses for healthcare in accordance with the prevalence rate;

5) To change the financial principle from costs financing towards the purchase of medical services by the payer;

6) To change the flow of funds for healthcare by addition to financing from the taxes the compulsory contribution from compulsory and voluntary health insurance and direct payment for medical care;

7) Decentralization of financing;

8) To increase sources of funding, i.e. a number of sources should be used (insurance payments, direct payments and so on) instead of one source from the state budget.

7. Conclusions

In drawing conclusions, it is necessary to emphasize that around the time of Ukrainian independence, the formation of modern medical law, the shift from state monopoly in healthcare towards diversifies healthcare system, based on competitive markets, is a real progress of our country. This enhances the quality of medical care for the population. Modern medical reforms create the basis for autonomization of medical entities and their independent financial, organizational, and business activity; this provides equal rights to all entities of different property forms.

But nevertheless, economic and political crisis and low level of community's prosperity in Ukraine hinder the development of the non-state commercial sector of healthcare, and hence the reformation of the healthcare field. Therefore, the modern medical reformation must take into consideration the gears and methods not only of direct economic and administrative ones but also propose the indirect economic methods of state regulation of health care in order to develop the healthcare market and make it the front-runner of social and economic policies in Ukraine.

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PROSPECTS FOR IMPROVING THE METHODOLOGY OF STRATEGIC ENTERPRISE MANAGEMENT

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Abstract. The prospects and directions of improvement of the methodology for strategic enterprise management have been highlighted. The *subject* of the research is theoretical and methodological aspects of creating a strategic enterprise management system based on the concept of a Balanced Scorecard (BSC). It has been revealed that in the context of changing the concept of the enterprise strategic development toward the growth of its intellectual capital as the main factor of competitiveness, the evolution of the enterprise management and planning system from strategic enterprise management to balanced enterprise management is taking place. The balanced scorecard has been defined as the basic concept of balanced enterprise management. The *purpose* of the study is to outline the prospects and directions for improving the methodology of strategic enterprise management under the conditions of its evolution into balanced enterprise management. *Results.* On the basis of a mathematical representation of the sphere of strategic responsibility (SSR) of the enterprise as an organizational and infrastructural environment for balanced enterprise management, it has been proved that the interaction of the SSR content components results in a synergistic effect of its expansion. This, in turn, determines the necessity and possibility of distributing the company's SSR beyond its management and involving the initiative owners in the process of balanced enterprise management. Accordingly, the prospects for improvement of the strategic enterprise management methodology have been defined as an integration of strategic management systems, approaches, methods and the BSC with non-traditional eventological methods combined with the analytic hierarchy process. It has been proved that, from the standpoint of the eventology, subjective observations and the mathematical apparatus of the theory of random events allow identification of general statistical regularities of the probabilistic set distribution in various, including management, systems. From the standpoint of a balanced approach, the need for enriching the methodology of the BSC as a system of balanced enterprise management, using the eventological analysis, is being boosted by the need to take into account the growing number of random, multi-directional and seemingly unrelated factors in the management process. *Methodology.* The following research methods were used in the study: the expert assessment method, factor analysis – for the formation of the management panel of the BSC; the eventological scoring and analytic hierarchy process – for balancing and structuring key performance indicators (KPI), economic and mathematical methods – to analyse the SSRs of the enterprise as an organizational and infrastructural environment for balanced enterprise management; a critical analysis – to compare alternative approaches to the formation of the BSC. *Value/originality.* To achieve the purpose of the study, the BSC methodology has been presented as a system of balanced enterprise management. A methodical approach to balancing and structuring KPIs, using the results of eventological analysis and analytic hierarchy process, has been proposed. Its *practical implications* include the possibility of reaching the target balance of indicators taking into account weighing coefficients of the main indicator selection criteria, the possibility to determine the whole system balance index as the average of the balance indices of each of the indicators that characterize the enterprise performance. The ways of implementing the methods of e-scoring and analytic hierarchy process for the assessment and correction of the enterprise's strategy have been studied. Integration of e-scoring with the strategic enterprise management method and the BSC methodology provides an effective vertical communication as the basic principle of balanced enterprise management, which extends the scope of strategic responsibility to subordinate initiative owners.

Key words: strategic enterprise management, Balanced Scorecard, balanced scorecard methodology, methodology of eventological analysis, analytic hierarchy process.

JEL Classification: M10, M41, B41, B49, C13

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1. Introduction

With the advances of the economy, enterprises are changing the marketing orientation of their strategy toward the growth of their intellectual capital as the main factor of competitiveness. As a consequence, the strategic enterprise management is being increasingly focused on the management of intangible assets, and strategic enterprise management is going up to a qualitatively new level of development, i.e. to the level of balanced strategic management. Unlike strategic enterprise management as a system for developing and implementing a strategy in the interests of owners, management and clients, balanced management will be a system of managing a strategy for increasing the company's value from the standpoint of all groups of economic and managerial influence, through balancing all the aspects of the enterprise's activities. The basic concept of balanced enterprise management is the Balanced Scorecard (BSC). Alongside the change in the concept of strategic development, the BSC is being transformed from the strategic enterprise management tool into an integrated system of strategic enterprise management as a more complex economic system. Certain signs of such tendency have been noticed by both foreign (Ashworth, 2006; Martin, 2006) and domestic researchers (Ivakina, 2007). However, the existing studies deal mainly with subproblems of the evolution of the BSC-based strategic enterprise management, considering the BSC in a limited methodological format. Methodological aspects of forming a management panel of the company's metrics and self-diagnostics of the company's strategic potential as a necessary condition for the effective formation of its balanced management are imperfect and lack research. The development of methodological principles of the BSC in the process of formation of balanced enterprise management, integration of methodical approaches and tools of strategic enterprise management and the BSC, their enrichment with non-traditional methods are in focus. Accordingly, the purpose of the study is to generalize and develop scientific and methodological foundations, to develop a methodology for strategic enterprise management under the conditions of its evolution into balanced enterprise management, to outline the prospects and directions of its improvement. This involves considering the following issues: analysis of preconditions for the integration of the strategic management systems, approaches, methods and the BSC with non-traditional eventological approaches combined with analytic hierarchy process (AHP); definition of the BSC methodology as a balanced enterprise management system; analysis of the methodical foundations for the formation of a management panel of indicators using the methods of e-scoring and analytic hierarchy process; justifying their possible applications for the assessment and correction of the company's strategy.

2. Preconditions for integrating the methodology of the eventological analysis with the methodology of balanced enterprise management

The formation of balanced enterprise management implies the creation of an appropriate organizational and infrastructural environment, which we define as a sphere of strategic responsibility (SSR). The coordinate area of the SSR is represented in Figure 1 in a three-dimensional coordinate system, where the mission, vision and strategy of the enterprise are the centre of the SSR; x is strategic goals; y is strategic competencies, that is, directions of activity, strategically important for the enterprise and corresponding to its CSFs (Critical Success Factors) / KPI (Key Performance Indicators); z is strategic resources, tangible and intangible, including tools for the strategic enterprise management.

The sphere of strategic responsibility of radius R with the centre at the origin can be mathematically represented as the second-order equation:

$$x^2+y^2+z^2=R^2. \quad (1)$$

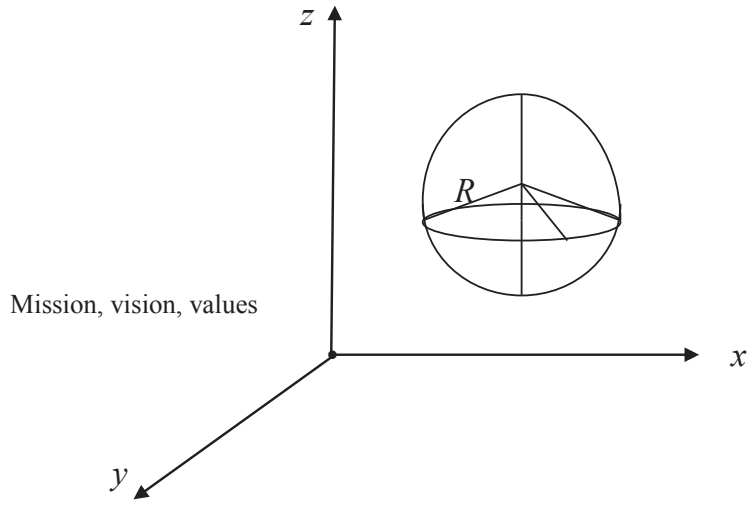

Figure 1. Coordinate area of the sphere of strategic responsibility

Then the area of the SSR will be

$$SCCB=4\pi R^2=4\pi\left[(x-x_0)^2+(y-y_0)^2+(z-z_0)^2\right], \quad (2)$$

where $(x_0\, y_0\, z_0)$ are the coordinates of the centre of the sphere of strategic responsibility.

Consequently, the interaction of the content components of SSR results in a synergistic effect of the expansion of the enterprise's SSR (with a coefficient 4π) (Zhilin, 2004). The resulting effect is amplified by a more complicated strategic management system, according to higher strategic goals, enhanced resources and competencies. This, in turn, determines the necessity and possibility of expanding the company's SSR beyond its management and involving the subordinate initiative owners in the process of balanced enterprise management. The search for appropriate mechanisms, including non-traditional ones, such as the procedure/methodology of eventological scoring (e-scoring), is becoming an urgent issue. Eventology is a scientific concept of the influence of events on the mind and matter; it reveals general and eventual patterns inherent in the mind and matter in all event manifestations and properties (Vorobyev, 2006). From the standpoint of eventology, subjective observations and the mathematical apparatus of the theory of random events allow identifying the general statistical regularities in the distribution of the probabilistic set in various systems, including management systems. Examples of the use of eventological methods in management are: evaluating the creditworthiness of borrowers in the banking system, optimization of securities portfolio risks, customer assessment in the system of retail and wholesale trade. The existing practice of using eventological methods to give numerical values to non-financial indicators and metrics of unidentified intangible assets (Yerokhina, 2013; Satsuk, 2010) should be extended to: selection, structuring and balancing of KPIs; self-diagnostics of the strategic potential of the enterprise in the process of monitoring the achievability of the strategy and its relevant corrections. From the standpoint of the balanced approach, the need to enrich the BSC methodology by the methods of eventological analysis is boosted by the need to take into account the growing number of random, diverse and seemingly unrelated factors in the process of managing.

3. BSC methodology as a balanced enterprise management system

The structural-logical model of the BSC methodology as a system of balanced enterprise management is represented in Figure 2. The methodology of the BSC as a balanced enterprise management system combines techniques and technologies of interrelated structural elements of the strategy management: from defining the strategy to detecting its "bottlenecks" through monitoring the level of managerial excellence, with a subsequent self-assessment diagnostics of the enterprise's strategic potential and assessing its adequacy for the implementation of the Strategic Management Improvement Script, followed by relevant corrections of the strategy and balanced scorecard.

4. Formation of the management panel of indicators using the methods of e-scoring and analytic hierarchy process

We consider the methodology of the BSC (balanced enterprise management system based on the BSC) as a system involving: traditional methods and technologies of the BSC (cascading, decomposition, etc.); traditional methods and technologies of strategic enterprise management (managerial, financial and economic diagnostics, Script analysis, brainstorming, etc.); and non-traditional methods of eventological analysis and analytic hierarchy process.

The core stage in creating a managerial panel of enterprise indicators is the selection, structuring and balancing of the KPIs. The list of the main criteria for selecting the KPIs for the management panel (strategic orientation and efficiency, functionality, balance of interests of the subjects of management, the possibility of cascading, ease of calculation, motivation and profitability) is subordinated to the task of their co-balancing, ranking them in importance and determining their interdependence to create the top-management panel using the methods of e-scoring and analytic hierarchy process. The I_{33} indicator balance index is used for a quantitative evaluation of the balance; it is calculated by the method of e-scoring as a conditional probability of the target event s – "the strategic indicator is generally balanced with the management panel indicators" in the conditions of the occurrence of a certain combination of the questionnaire events.

E-scoring allows integral evaluation of a targeted event occurrence on the basis of a probabilistic distribution set of the questionnaire questions (Vorobyov, 2004; Vorobyev, Goldenok, 2003; Sherykalova, 2010). According to the existing method, if the estimate of the probability of the event under consideration is performed within the framework of a probability space: (ω, F, P) with the algebra: F of events measured and probability: P, then all the set of events: X being analysed will be considered as measured relative to algebra F, i.e.: $X \subset F$; ω is the space of elementary target events.

According to the method of e-scoring, the basic difference between the questionnaires for the target group of experts in comparison with the experts' evaluation is the formulation of a questionnaire containing closed questions and binary responses. The purpose of the survey is to assess the probability of the target event. Events are divided into two groups: elementary events: $x_i \subseteq \omega$ are events formulated in the questionnaire questions, and questionnaire events: $£ \subseteq \omega$ – events that are modelled by respondents in the process of their answers to the questionnaire. Using the questionnaire survey, one can estimate the probability of the occurrence of the target event s based on the relationship between the elementary event: $x_i \subseteq \omega$ and the questionnaire event: $£ \subseteq \omega$. A set

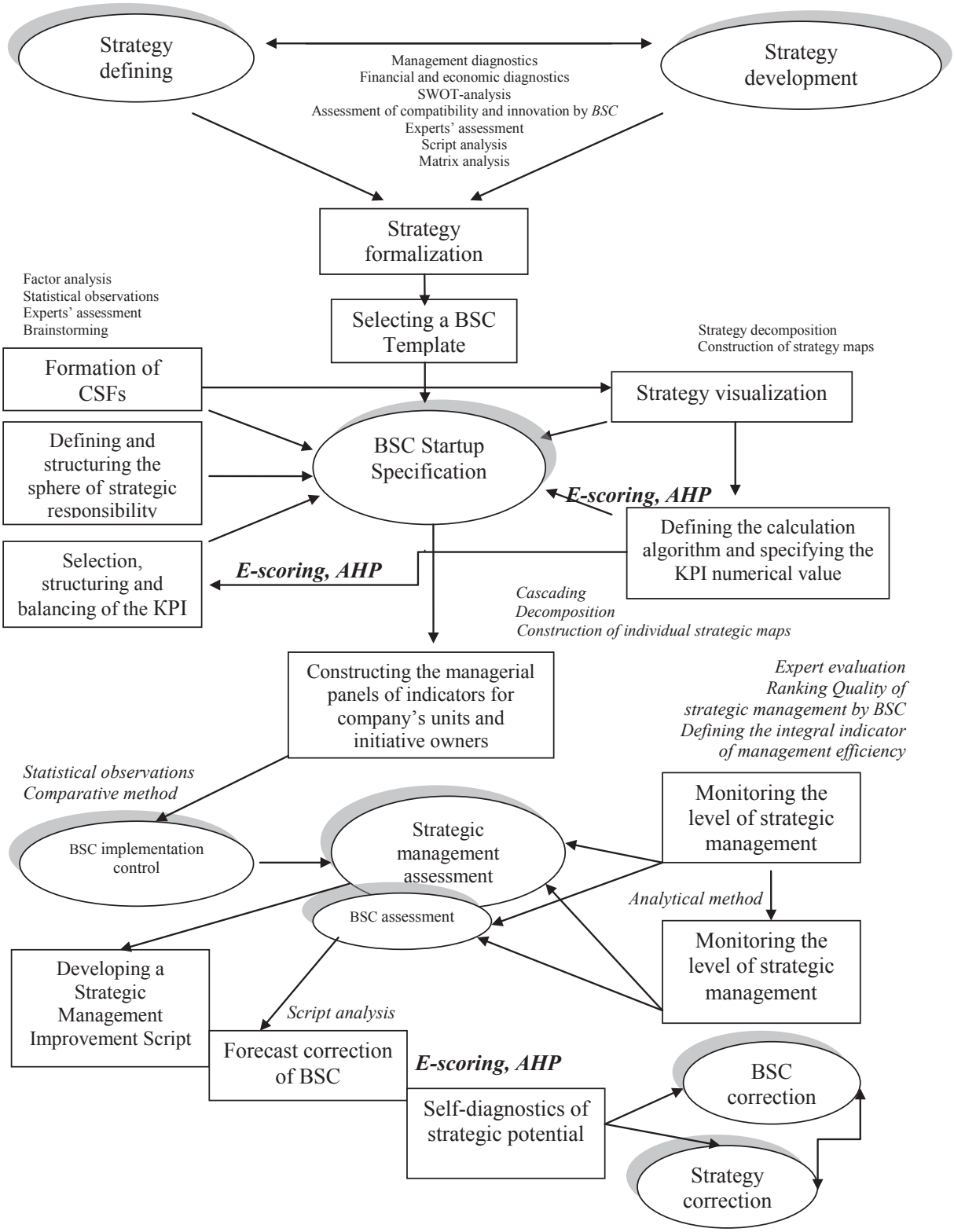

Figure 2. Structural-logical model of the methodology of the BSC as a system of balanced enterprise management

of experts evaluating the state of the research object is $M = \{\eta, \lambda, ..., \upsilon\}$. In accordance with the e-scoring method, the set X is considered as the set of elementary probable events, in which each question of the questionnaire about the factor: x_i $(i = 1,...,n)$ can be represented as $xi=\{x_1, x_2,..,x_n\}$, where the k-th variant is the answer to the question xi, which represents a certain level of the value of the factors: x_i $(k=1,...,p_i)$. In this case, events with a fixed

k can have a different structure of dependence, therefore, the set $\{x_1,x_2,....,x_n\}$ also has a certain structure of dependence. Statistical processing of the questionnaires gives the frequencies: $p(j,0)$ and $p(j,1)$ of the experts' giving positive or negative answers, respectively, to j-th question (statistical probability of a specific elementary event). For statistical processing and subsequent interpretation of the survey results according to majority rule, the method of e-scoring analysis uses the parameter: $a = 0.5$ (if the frequency of the experts' positive answers to a question of the e-scoring questionnaire is higher than or equal to 0,5, then the experts' response is considered to favour the target event and vice versa).

The e-scoring technique imparts a positive weight: $\omega(s \cap x) \geq 0$ and $\omega(s^c \cap x) \geq 0$ to the elementary event x, both favourable and unfavourable for the event s. A probable interpretation of this weight takes the following form:

$$\omega(s \cap x) \approx P(s \cap x) = P(s \mid x)P(x), \quad (3)$$

$$\omega(s^c \cap x) \approx P(s^c \cap x) = P(s^c \mid x)P(x) \quad (4)$$

To define I_{33}, the tool apparatus of e-scoring is used: a formula for calculating the conditional probability of the target event s in the occurrence of a specific combination of the questionnaire events, modelled by experts in the process of their answering the questionnaire. In this case, the event takes into account the features of the 3 possible eventological structures of the elementary events (formulated in the questions of the questionnaire): least intersecting, independent and embedded. Thus, the conditional probability: $P\left(s \mid t_s^{\cup}(X)\right)$ is calculated for the target event s in the occurrence of a specific combination of questionnaire events interpreted as a terrace event: $t(X) \subseteq \omega$ for alternative eventological structures of the elementary events. For the least intersecting events, the calculation is carried out according to the formula:

$$P\left(s \mid t_s^{\cup}(X)\right) = \frac{\sum_{x \in X} \omega(s \cap x)}{\sum_{x \in X} \omega(s \cap x) + \sum_{x \in X^c} \omega(s^c \cap x)}, \quad (5)$$

where ω is the space of elementary target events s; x is a set of selected factors characterizing the state of the object of analysis and represented in the questionnaire; X is a set of basic criteria of balance, which are reflected in the questionnaire;

$\omega(s \cap x)$ is the results of the interpretation of questionnaire events-answers as positive responses, contributing to the target event; $\omega(s^c \cap x)$ is the results of the interpretation of questionnaire events-responses as negative; c^s is a complement to the target event s.

Hence, ignoring the level of importance of the selection criteria, index of the balance of each BSC indicator: I_3 is:

$$I_3 = P\left(s \mid t_s^{\cup}(X)\right). \quad (6)$$

The proposed questionnaire for an e-scoring analysis of the KPI balance in a value-oriented enterprise is presented in Table 1. In order to obtain a more objective assessment of the level of balance of each of the indicators to be included in the BSC, the calculation of I_{33} uses weighing coefficients (r_{3i}), which measure the importance of the KPI selection criteria on the basis of the AHP mathematical tools.

There are X criteria that justify the selection of indicators to the BSC, and each criterion has a different level of importance. Experts should compare the criteria pairwise using the scale of preference (Table 2).

The pairwise comparison of the importance of criteria to be used for the selection of indicators to the BSC produces an inverse-symmetric matrix A, which has the form:

$$A = \begin{vmatrix} 1 & a_{12} & \ldots & a_{1j} \\ a_{21} & 1 & \ldots & a_{2j} \\ \ldots & \ldots & \ldots & \ldots \\ a_{i1} & a_{i2} & \ldots & 1 \end{vmatrix}, \quad (7)$$

where a_{ij} is the criterion degree of preference, defined using the scale of preferences. Note that: $a_{ji} = 1 / a_{ij}$.

The expert-generated matrix of pairwise comparisons A is the basis for the calculation of the corrected matrix A_C, whose elements are calculated by the formula:

$$c_{ij} = \frac{a_{ij}}{\sum_{i=1}^{k} a_{ij}}. \quad (8)$$

Table 1

Questionnaire for e-scoring analysis of KPI balance

Question x	Main criteria for selection of indicator	Elementary events ($xi \subseteq \omega$) – events, formulated in the questions of the questionnaire
1	Strategic orientation and efficiency	Is it possible to assess the degree of implementing the enterprise's strategy using the indicator?
2	Functionality	Can a strategic initiative owner really influence the results of using the company's potential or activation of its growth potential by reaching the indicator metric?
3	Balance of interests	Does reaching the indicator metric increase the enterprise's value in the opinion of different consumers of information?
4	Possibility of cascading	Does achieving the indicator affect the performance of other levels of management and other owners of strategic initiatives?
5	Ease of calculation	Does the initiative owner understand the algorithm of calculating the indicator or the way of making a specific decision based on a text description of the indicator?
6	Degree of motivation	Does the indicator serve to achieve strategic goals?
X_7	Economy	Does the enterprise have an information base for calculating the indicator?

Table 2
The scale of preferences for the criteria of indicator selection

Degree of preference	Score in points	Explanation
Equally preferred	1	The two criteria are rated equally important for the selection of indicators for the balanced scorecard.
Moderately preferred	3	There is a slight preference of the first criterion to the other in selecting indicators for the balanced scorecard.
Medium preference	5	The importance of the first criterion has a medium advantage over the other.
Strongly preferred	7	The importance of the first criterion significantly exceeds the importance of the other.
Absolutely preferred	9	The first criterion in terms of importance is absolutely preferred to the other.
Intermediate values	2, 4, 6, 8	Applied, if a compromise solution is needed to determine the importance of a criterion.

The data of the matrix A_C are used to define a vector of weighing coefficients of the criteria for selecting indicators for the balanced scorecard r_j:

$$R = \begin{vmatrix} r_1 \\ r_2 \\ .... \\ r_j \end{vmatrix}. \quad (9)$$

Each of the weighting coefficients is calculated according to the formula:

$$r_{zj} = \frac{\sum_{j=1}^{k} c_{ij}}{k}, \quad (10)$$

where k is the number of criteria to be used for the selection of indicators to the balanced scorecard.

Thus, vector R determines the importance of each criterion used to justify the selection of an indicator to the BSC. In order to verify the correctness of the matrix A design and subsequent calculations, it is necessary to determine the consistency ratio (Saati, 1993):

$$ВП = \frac{I_П}{I_В}, \quad (11)$$

where $I_П$ is consistency index; $I_В$ is random index.

The random index depends on the number of criteria used for the selection of indicators to the balanced scorecard. The consistency index is calculated according to the formula (Saati, 1993):

$$I_П = \frac{ППП - k}{k - 1}, \quad (12)$$

where $ППП$ is a consistency estimator, which is defined by the expression:

$$ППП = \sum_{j=1}^{k} \sum_{i=1}^{n} a_{ij} \times r_{zj}. \quad (13)$$

If the consistency ratio is less than 0,1, then the matrix is formed correctly and further calculations will be reliable.

Taking into account the degrees of importance of the criteria used for the selection of indicators, the Balance Index in the BSC for each of them will be calculated according to the formula (in a situation of least intersecting elementary events):

$$Iз3 = \frac{\sum_{x \in X} \omega(s \cap x) r_{zi}}{\sum_{x \in X} \omega(s \cap x) r_{zi} + \sum_{x \in X^c} \omega(s^c \cap x) r_{zi}}. \quad (14)$$

Similarly, the formula for calculating $I_з$ is modified, and the corresponding balance index $I_{зз}$ for other eventological structures is defined.

The calculated $I_{зз}$ allows assessing the level of balance of each indicator (close to or greater than: $\alpha = 0{,}5$) and the validity of its inclusion in the BSC: high balance ($I_{зз} \geq 0{,}7$), average balance ($0{,}5 \leq I_{зз} < 0{,}7$) and low balance ($I_{зз} < 0{,}5$). It is also possible to determine the highest priority indicators and lagging metrics.

The balance index of the entire system of indicators, which takes into account the degree of importance of each criterion to be used for the selection, will be:

$$Iз_{заг} = \frac{\sum_{i=1}^{n} Iз3_i}{n}, \quad (15)$$

where n is the number of indicators selected for the BSC using the main selection criteria, $i = 1, 2 \ldots n$.

5. Self-diagnostics of strategic potential of the enterprise by the e-scoring method

A prerequisite for the effective formation of balanced enterprise management is the adequate level of strategic potential of the company, its intellectual capital as the main source of growth of its market value. The existing level of strategic potential may be quite sufficient for implementing one type of value-oriented strategy but insufficient for another. This requires self-diagnostics of the company's strategic potential. Unlike controlling, self-diagnostics involves the staff, each employee of the enterprise in the process of strategy management based on the proposed methodological approach to assessing the strategic potential of the enterprise, which includes defining an intellectual potential index that takes into account the level of importance of the criteria used to assess the strategic potential through a combination of eventological scoring methods and analytic hierarchy process.

The questions in the proposed questionnaire for e-scoring analysis of the company's strategic potential (Table 3) cover various aspects of the qualitative level of intellectual capital of the enterprise as the basis of its strategic potential.

Table 3

Questionnaire for e-scoring analysis of self-diagnostics of intellectual potential of enterprise (fragment)

xi	Elementary event $xi \subseteq \omega$
	Management Capital
x_1	Indicators of annual budgets are real and aimed at achieving operational financial goals
x_2	We feel the effectiveness of managerial decisions
x_3	We know our competitive advantages
x_4	Our operational activities are subject to the achievement of strategic goals
x_5	The organizational structure of the management allows prompt response to changes in the internal and external environment
x_6	Regular analysis of the implementation of the plans is carried out
x_7	We appreciate the management style of senior officers
x_8	The management of the enterprise has the necessary level of professionalism and creativity
x_9	The enterprise has many levels of management that slow down the timely and reliable communication of information to the lower levels of management.
x_{10}	We respond promptly to the problems faced by customers
x_{11}	We thoroughly analyse the results of the implementation of current plans throughout the year
x_{12}	We have a clear understanding of our place in the enterprise management system
x_{13}	We set only real goals for ourselves
x_{14}	Plans of our management are always co-balanced
x_{15}	Our material remuneration depends on the achievement of strategic goals
	Information Capital *xi* (*i* = 16,...,25)
x_{16}	The information system of the enterprise is only focused on accounting, and not on an individual information consumer
	Human capital *xi* (i = 26,...,40)
x_{26}	We are aware of real opportunities to show our skills and abilities and make a good career
	Organizational capital *xi* (i = 41,...,50)
x_{41}	Achievement of strategic goals is our priority

The assessment is carried out by designated respondents, who are experts from the production and management units of the enterprise. The conditional probability of the occurrence of the elementary event s is estimated: "the necessity and possibility of establishing balanced enterprise management," i.e., the integration of BSC into the system of strategic enterprise management. Elementary events $x_i \subseteq \omega$, which are the events formulated in the questionnaire, are grouped according to the structure of intellectual capital of the enterprise as the basis of its strategic potential. Calculation of the conditional probability of the target event *s* in the situation of the least intersecting elementary events allows determining the index of intellectual potential I_{in}, which takes into account the importance of the assessment criteria by the formula:

$$\text{Iin} = \frac{\sum_{x \in X} \omega(s \cap x) r_{3i}}{\sum_{x \in X} \omega(s \cap x) r_{3i} + \sum_{x \in X^c} \omega(s^c \cap x) r_{3i}}, \quad (16)$$

where r_{3i} is the weighing coefficient or the degree of importance of the *i*-th criterion for assessing the intellectual capital of the enterprise according to its characteristics/structural components; i=1,2 … 50.

The strategic potential of the enterprise is considered sufficient for the implementation of balanced enterprise management if in the index of intellectual potential is within the interval: $I_{in} = \{0{,}5; 1\}$.

According to the proposed BSC methodology, self-diagnostics of the company's strategic potential, based on a combination of methods of e-scoring and AHP allows identifying the main problems and factors of increasing the value/level of the analysed object, which is done through analysing the questionnaire events (responses) interpreted as those that do not contribute to the occurrence of the target event – the desired level of enterprise management.

6. Conclusions

The BSC methodology as a balanced enterprise management system combines the techniques and technologies of interrelated structural elements of strategy management: from defining the strategy to identifying its "bottlenecks" through the procedure for monitoring the level of management excellence, the subsequent self-diagnostics of the enterprise's strategic potential and assessing its adequacy for implementation the Strategic Management Improvement Script, followed by the relevant corrections of the strategy and balanced scorecard. Integration of e-scoring with the BSC method ensures the effective functioning of vertical communication as the basic principle of balanced enterprise management, extending the scope of strategic responsibility to subordinate owners of initiatives. The proposed methodical approach to balancing and structuring the KPIs, based on the results of eventological analysis and analytic hierarchy process,

enables achieving the established level of the balance of indicators taking into account the weighting factors of the major selection criteria; it allows determining the balance index of the whole system as the average of the balance indices of each of the indicators characterizing the enterprise performance. The extension of the subject field of the eventological analysis and analytic hierarchy process to the assessment of the company's strategic potential makes it possible to turn BSC into a "working model" for managing the enterprise strategy.

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ORGANIZATIONAL AND LEGAL REGULATION OF THE FINANCIAL SECTOR OF THE ECONOMY AMID EUROPEAN INTEGRATION

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Abstract. Financial sector development depends on the efficiency of its regulatory mechanisms that should correspond to the directions of implementation of state financial policy, which is aimed at the support for economic stability, protection of interests of participants in financial markets, and provision of rational use of growing financial market potential. Introduction of the mechanism of organisational and legal regulation is able to implement a complex approach to the application of various methods, means, other regulators on processes of effective formation and use of state financial resources in order to ensure their coordination and correspondence to strategic development priorities of the state. *The purpose of the article* is to substantiate features of organisational and legal regulation of the financial sector of the economy of EU countries and Ukraine, identify the main directions for reformation and recommendations for its improvement in the context of European integration trends and the possibility of securing competitive positions of Ukraine in the international market. The most widespread in the world are two models for regulating the financial sector's activity – sectoral model and mega-regulator model. In the sectoral model, functions of public authorities are distributed according to three financial sectors (banking, insurance, stock). The model of mega-regulator determines the peculiarities of establishing a single authority endowed with functions of supervision and regulation of the financial sector. At the modern state of countries' development, the main methods and forms of state regulation of the financial sector are determined by direct (development and adoption of laws and regulations, licensing of the activities, supervisory activities and implementation of measures of supervision of financial institutions) and indirect (changes in the volume of cash resources, securities issue, interest policy, provision of guarantees on fulfilment of obligations for securities of separate issuers, encouragement of foreign relations with international financial organisations) influence. Financial sector regulation in the EU and Ukraine is carried out according to the sectoral model where banking activities are subject to the Central Bank; activities in the market for securities are regulated by the National Securities and Stock Market Commission; activities of other financial intermediaries and financial companies are regulated by the National Commission for State Regulation of Financial Services Markets. *Results* of the research conducted allow determining the features of state regulation of the financial sector of the economy of Ukraine: the lack of legislative environment for regulating the financial status at the macrolevel and microlevel; provisions of the existing regulatory framework are aimed at the regulation of economic security; the absence of strategic benchmarks fixed in long-term documents for ensuring financial development of the country and the economic development of financial institutions; the presence of several regulators of the state of the financial system that duplicates functions and causes inefficient work; information closeness of regulators of financial market and financial system regarding the results of their work on ensuring the financial stability of the state. In order to improve rating positions and competitive advantages of Ukraine in global markets, it is necessary to develop additive legal framework and state support program for export-oriented enterprises for the promotion of export of finished products with high added value; start the policy of expansion on the basis of expansion of both geographical and commodity structure of exports.

Key words: financial sector, state regulation, state supervision, legal framework, financial institutions, competitiveness, European integration.

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1. Introduction

In terms of dynamic changes in the world economy under the influence of crisis phenomena, the need arises to improve the activity of the financial sector that is one of the basic elements of the existence of each state. Stable functioning of the financial sector is one of the factors stimulating the country's dynamic development. Financial sector development depends on the efficiency of its regulatory mechanisms that should correspond to the directions of implementation of state financial policy, which is aimed at the support for economic stability, protection of interests of participants in financial markets, and provision of rational use of growing financial market potential.

In modern times, the development of the financial sector of the state depends on its institutional structure, and how clearly the tasks of organizational and legal regulation are defined. Therefore, improving the mechanism of organizational and legal regulation of the financial sector should be system and based on the sustainable methodological basis of the institutional approach. Introduction of the mechanism of organisational and legal regulation is able to implement a complex approach to the application of various methods, means, other regulators on processes of effective formation and use of state financial resources in order to ensure their coordination and correspondence to strategic development priorities of the state.

One of the key strategic priorities of the state is to establish parity boundaries of competitiveness in the European market. Given the fact that competitiveness of the economy is a multifaceted, complex, and systemic concept, it is common ground among scholars to distinguish two basic approaches to its interpretation. In the first case, competitiveness is understood as an ability of the state economic system in a free competitive environment to satisfy internal and external market needs and ensure long-term economic growth. Within the second definition, competitive advantages of the national economy are manifested exclusively in international markets and to some extent provide the country's leadership (Skrypnyk, Khyryuddinov, 2016).

The purpose of the article is to substantiate features of the organisational and legal regulation of the financial sector of the economy of EU countries and Ukraine, identify the main directions for reformation and recommendations for its improvement in the context of European integration trends and the possibility of securing competitive positions of Ukraine in the international market.

Financial market development depends on the efficiency of relations in the system "state – financial market participants". The realisation of such relations on the part of the state should be carried out through the organisational-institutional mechanism that is based on a combination of market laws and administrative foundations of state regulation in order to achieve a certain goal.

2. The methodology of research

At the modern state of functioning of the economy of Ukraine, development of the financial sector is determined by the perfection of its regulatory system. Because, taking into account regulatory mechanisms of the state financial sector, regulators are created that should coordinate actions regarding the regulation and control of the activities of financial sector entities and the availability and compliance with international norms of other infrastructural elements (Rekunenko, 2013).

The experience of European countries in ensuring, in particular, public administration in the area of the formation of the EU stock market, is a particularly important factor in the progressive movement of the economy of any state. A conscious and consistent approximation to the EU legal acts regulating activities in the sphere of the formation of the EU stock market is a prerequisite for the countries on the way toward the European Union.

A large number of scientists considering issues of financial, legal, and regulatory control of the state focused their research on different directions. Let us outline the main recent vectors of the scientific opinion regarding the consideration of the problems of regulation of the financial sector of the economy.

A number of studies of the following authors are devoted to the analysis of mechanisms for the creation and development of the stock market, the principles of its functioning and organization. M. Barnier, European Commissioner for Internal Trade (The new European, 2017), R. Healey, W. Rhode, M. Mizen studied the issue of derivative regulatory instruments in European markets (Deriv Alert, 2015); Oslund A. considered the cause and consequences of financial market crises that arose in the USA; Eteris Y. U. considered the economic-legal patterns of development and functioning of the financial market in the Baltic States (Eteris, 2018).

However, the dynamics of changes in the world and Ukrainian economic, political, and legal space are so fast and multifaceted that it requires constant refinement, new research and new recommendations regarding the development and implementation of organizational and legal mechanisms for regulating the financial sector of the economy in the context of European integration.

Two models for regulating the financial sector's activity remain the most widespread – sectoral model and mega-regulator model.

In the sectoral model, functions of public authorities are distributed according to three financial sectors (banking, insurance, stock). Mega-regulator model determines the peculiarities of establishing a single authority endowed with functions of supervision and regulation of the financial sector.

The most perfect model is the British mega-regulator model, which combines the functions of supervision and control over investment, banking, mortgage, and

insurance services. In France, banking supervision and supervision over non-bank financial institutions are divided between the Bank of France and a specially created regulatory body. In Germany, the regulatory model is similar to French, but there are banks in the regulatory area (Bondarenko, 2018).

At the modern stage, in the EU countries and most economically developed countries (Canada, Japan, Great Britain, France) and Ukraine, the main methods and forms of state regulation of the financial sector are determined by direct (development and adoption of laws and regulations, licensing of the activities, supervisory activities, and implementation of measures of supervision of financial institutions) and indirect (changes in the volume of cash resources, securities issue, interest policy, provision of guarantees on fulfilment of obligations for securities of separate issuers, encouragement of foreign relations with international financial organisations) influence.

Financial sector regulation is carried out according to the sectoral model where banking activities are subject to the Central Bank; activities in the market for securities are regulated by the National Securities and Stock Market Commission; activities of other financial intermediaries and financial companies are regulated by the National Commission for State Regulation of Financial Services Markets.

The global financial crisis has proved the need to revise the peculiarities of the functioning of financial sector regulators since it has revealed their weakness in preventing crises in financial markets. Meanwhile, the institutional features of the evolution and formation of the financial market determine the need for further study of the functions and role of organizational and legal regulation of the financial sector and the development of effective mechanisms for its implementation in the context of European integration tendencies.

For studying the public administration system in the field of the formation of the stock market of the EU countries, there is a well-developed source base. It is a systematic array of relevant legislation of the European Union. First of all – the Treaty establishing the European Community (1957) and the Treaty on European Union (Maastricht, February 7, 1992), the next are – Regulation (EU) No. 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (Regulation (EU), 2010), Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC (Directive 2004/39/EC), European Parliament resolution of 9 October 2008 with recommendations to the Commission on Lamfalussy follow-up: future structure of supervision (2008/2148(INI)) (Directive 2004/39/EC) and so on.

Mechanisms of organizational and legal regulation of the financial sector should concern not only the rational formation, distribution, and use of financial resources between its elements but also serve as a means of formation of the institutional and legal environment, which will promote consistent changes in the legislative framework, improvement of the legal framework, development of financial institutions. In Ukraine, the period of the reform of institutional support and the formation of new effective mechanisms of functioning of the economy is ongoing. The existing organizational, legal, and economic institutions of market orientation are being developed and new ones are being created.

The application of the institutional approach to regulating the financial sector of the economy makes it possible to comprehensively consider the possibility of its functioning, and organizational and institutional regulation can strengthen the ability of participants to fruitful interaction.

The most important institutes forming the external institutional environment of the financial sector of the economy are (Bondarenko, 2018):

– institute of law regulating legal relations in sectors of the financial market;
– the market institute that regulates the interactions that occur between participants in the process of buying and selling financial assets;
– institute of taxes, which determines the economic-legal relationship between financial institutions and the state;
– institute of public choice that regulates the process of making macroeconomic decisions in conditions of representative democracy;
– institute of education, which forms the appropriate skill level of specialists for the modern financial market;
– institute of foreign economic relations, which regulates the financial and legal processes of interaction of domestic institutions with the world financial system.

The development and implementation of a comprehensive system of regulation of the financial sector of the economy, the use of micro-and macro-prudential supervision as the sole mechanism for influencing the activities of financial institutions are designed to solve the problems of the financial system of the country (Melykh, 2013).

In the report "De Lazorier's Report", presented on February 25, 2009, the High Level Group (the group of highly qualified experts convened by the President of the European Commission J. Barroso in 2008) recommended strengthening the principles of financial system supervision in order to reduce the risks and burdens of future financial crises. In particular, it was recommended to reform the structure of supervision of the financial sector in the EU. The level of its development required a significant convergence between member states to develop common technical standards for market participants, as well as to establish a mechanism for coordinating national coordinators. The latter would

make it possible to quickly apply the rules made by regulators at the national financial levels of all EU member states and significantly reduce the period of review in the European Court, ensuring prompt response to adverse events in the market. The High Level Group has come to the conclusion that the European financial supervision system should be set up in three European supervisory bodies, one for each sector: banking, securities, insurance and professional sector of pensions.

The creation of the European Systemic Risk Board was also recommended. Experts insisted that these reforms and actions are urgently needed. Consequently, in the context of the global financial and economic crisis, the European Union finally abandoned the liberalization of the free financial market in favour of strict control by regulators at both the state and pan-European level. Since it is not possible to predict the end of the crisis, EU finance ministers considered it useful to follow the example of the USA: they allowed their banks to reclassify assets in order to create equal conditions for European and American financial institutions. Accordingly, at this time, the legal influence of Europe on the part of the system of governing bodies was changed: there was a gradual transition from the dispositive method of legal regulation of this sphere of social relations to the imperative method.

Based on the report of the expert group, the European Commission made proposals on creating a new system of control and supervision of the financial market in Europe. In September 2010, the European Parliament voted in favour of its implementation and created four new supranational regulators, which came into operation on January 1, 2011, – the European Securities and Markets Authority, the European Insurance and Occupational Pensions Authority, the European Banking Authority; an advisory and analytical body was also created – the European Systemic Risk Board. Therefore, these four authorities constitute today the European System of Financial Supervision. Based on members of these regulators, the Joint Committee is formed, which should meet at least every two months and produce a coordinated program of action and a common position on the regulation of the activities of financial conglomerates.

For the harmonious integration of Ukraine in the EU in the economic and legal framework, it is necessary to perform a number of commitments already declared by the country's leadership. A list of EU Directives to be implemented in Ukraine over a period of 5 years relates to the development of banking, insurance, securities market, co-investment, market infrastructure, anti-money laundering measures, providing free movement of funds and capitals.

So, from the whole list of regulatory acts in the banking sector that Ukraine needs to implement in the coming years, one of the main documents is Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and the pursuit of the business of credit institutions. In the insurance sphere, it is needed to implement Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance.

In the financial market – to implement Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments, and in the market for joint investment – Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (Verkhovna Rada, 2011).

Based on these provisions, the Comprehensive Program of Ukrainian Financial Sector Development Until 2020 was adopted on 18.06.2015. It includes in the regulatory work plan with a list of activities planned to be implemented, a plan of action for achieving such goals, the time frame, and those responsible for implementing these provisions. In order to achieve its goal and objectives, it provides for implementing the cooperation program with such institutions as the EU, IMF, World Bank, EBRD, EIB, BIS, IOSCO, IAIS, and other international financial organisations, associations, and regulators in the sphere of financial markets and services.

3. Results and discussion

Expected from 01.09.2017, the entry into force of the Association Agreement between Ukraine and the EU stipulates the necessity of finding and agreeing with partners the next steps of Ukraine on the way toward its further integration in the European Union structures. It is not known at this time what form will get further integration (customs union, common market, full integration with the subsequent acquisition of membership or some combination of these options), however, this movement will obviously continue, which actualises the issue of analysis of potential risks occurring on the further way of Ukraine toward the structures of the European Union.

Thus, further deepening of the integration of Ukraine and the EU, besides unconditional advantages and additional opportunities in the economic and financial fields, has a set of specific risks that can appear in middle-term perspective. These risks, in particular, are as follows.

At the end of 2013, at the level of the European Union, a Banking Union was established, which united 130 largest Eurozone banks out of 6 thousand Eurozone banks and 8 thousand EU banks under the unified supervision system and provides for three

basic principles of functioning (Sharov O.M, 2016): the single banking supervisory system controlled by the ECB; the single mechanism for regulating bank failures with a special new fund for the reimbursement of customer losses; the general system of insurance of private bank deposits at the level of up to 100 thousand euros.

Herewith, the rest of the smaller banks remain under control of national regulators. The banking system of Ukraine pales in comparison to banking systems of EU countries because it is actually at the Basel I level while European countries have long since moved to the Basel III level.

For example, the current legislation in Ukraine substantially restricts the movement of capital both for residents and non-residents. In particular, natural and legal persons-residents of Ukraine cannot freely open accounts abroad, send significant sums of currency outside Ukraine without "valid" reasons (treatment, education, etc.). For investment abroad, residents should obtain special licenses of the NBU.

In order to withdraw capital abroad, unscrupulous resident legal entities use a variety of "schemes", the most common of which are fictitious exports and imports. In the first case, the enterprise deliberately sends a certain product abroad, having agreed in advance with the counterparty not to receive payment in Ukraine, which "settled" on the accounts of the enterprise or its actual owners abroad. In the second case, the enterprise makes advance payment for a certain product abroad, in advance agreeing with the business partner that the goods, in fact, will not arrive in Ukraine. In the framework of combating the outflow of capital abroad in this way, the NBU requires from all banks the monthly statistical reporting in the form No. 531 "Report on residents – subjects of foreign economic activity, who exceeded the time limits set by the legislation for payments for export operations" that includes comprehensive information on the legal entity (exporter or importer) in order to further impose penal sanctions thereto.

It is obvious that further deepening of EU-Ukraine integration encourages Ukraine to gradually abandon the strict control of capital movements and the substantial liberalization of currency legislation, as the EU did; however, we believe that it can provoke a significant outflow of capital in the short term. In its turn, it can negatively influence the currency rate dynamics by growing demand in the interbank currency market on the part of foreign investors who will wish to "exit" from Ukraine.

Studying the formation and development of financial and political system of various countries allowed drawing conclusions that ensuring the self-sufficiency of the national economy and strengthening the level of competitiveness of the national economy and the proper positioning of Ukraine in the coordinates of the world financial and economic space should be based on the principles of strict protectionism and implementation of the policy of "import substitution", expansion of production of domestic goods and services, limitation of the supply of imported goods by the public administration sector. Thus, at the expense of protectionist measures, it is possible to restore "stagnant" productions, which in turn will lead to an increase in the number of jobs with an appropriate level of remuneration (Timoshenko, 2016). This measure will have a positive effect on the cessation of the mass emigration of highly skilled labour to the European Union member states, which is determined by the adoption of a visa-free regime. Using protectionist measures, namely administrative levers, it is possible to ensure the social security of low-income sections of the population, free education, medicine, etc.

The author fully understands that on a world scale, in the long run, levers and measures of protectionist policy can lead to the historical collapse of the national economy; nevertheless, in the new economic reality in Ukraine, these measures are important and argued (irrational import structure, "import substitution" policy of the Russian Federation, military-political conflict of Ukraine, loss of the mainland territory of Ukraine, ineffective quota system for agricultural products set by the European Community, etc.). Moreover, it cannot be ignored that today the overwhelming majority of countries in the world are also defending the position of protectionism.

The influence of globalisation on the economy and financial sector of Ukraine can be traced through intergovernmental comparisons and dynamics of the country's place in world economic ratings. So, the index of globalization is indicative, which is based on the assessment of the level of international relations of the country, its integration and independence by 24 indicators broken down into three categories: economic, social, and political globalization. Ukraine ranks 47th out of 207 countries with a score of 67.78%, in particular, 64th place by the economic component (64.84 points), 69th – by the social component (57.78 points), 42nd – by the political component (86.07 points). The situation has somewhat changed over the previous three years when the country has been steadily at the 44th place (The position of Ukraine in the world ranking according to the Global Competitiveness Index 2016-2017).

Another important rating of the country's place in universal space is the Global Competitiveness Index that is calculated by the methodology of the World Economic Forum since 2004 based on 113 indicators combined in 12 groups (The position of Ukraine in the world ranking according to the Global Competitiveness Index 2016-2017). One of the most essential institutional constraints on the accelerated economic development of Ukraine, in particular,

Table 1
International rating of leading countries according to the Global Competitiveness Index for 2000-2016

№	2000–2001		2004–2005		2009–2010		2014–2015		2015–2016		2016–2017	
1	Finland	6,03	Finland	5,94	Switzerland	5,63	Switzerland	5,70	Switzerland	5,76	Switzerland	5,81
2	USA	5,95	USA	5,81	Sweden	5,56	Singapore	5,65	Singapore	5,68	Singapore	5,72
3	Canada	5,87	Sweden	5,65	Singapore	5,48	USA	5,54	USA	5,61	USA	5,70
4	Singapore	5,84	Denmark	5,65	USA	5,43	Finland	5,50	Germany	5,53	Netherlands	5,57
5	Australia	5,74	Taiwan	5,58	Germany	5,39	Germany	5,49	Netherlands	5,50	Germany	5,57
6	Norway	5,64	Singapore	5,48	Japan	5,37	Japan	5,47	Japan	5,47	Sweden	5,53
7	Taiwan	5,59	Island	5,48	Finland	5,37	Hong Kong	5,46	Hong Kong	5,46	Hong Kong	5,46
8	Netherlands	5,56	Switzerland	5,46	Netherlands	5,33	Netherlands	5,45	Finland	5,45	Finland	5,45
9	Sweden	5,55	Norway	5,40	Denmark	5,32	Great Britain	5,41	Sweden	5,43	Sweden	5,43
10	New Zealand	5,53	Australia	5,21	Canada	5,30	Sweden	5,41	Great Britain	5,43	Great Britain	5,43
-	Ukraine - 69	3,26	Ukraine - 84	3,30	Ukraine - 89	3,90	Ukraine - 76	4,14	Ukraine - 79	4,03	Ukraine - 85	4,0

Source: developed by the author based on sources (GDP. The World Bank, 2018).

its financial sector, is a consolidation of informal relations and various manifestations of the shadow economy in the economic system and society. Among international ratings, the situation is best reflected by the Corruption Perceptions Index (GDP. The World Bank, 2018). Studies have been conducted since 2005 by Transparency International on the basis of independent surveys of financial experts and human rights defenders and the study of public opinion.

According to the results of 2014, Ukraine ranked 144th among 182 countries, which is comparable with a number of low-income African economies (Cameroon, Congo, Central African Republic, Syria, Bangladesh). As can be seen from the data presented in Table 1, during the analysed period, such countries as Finland, the USA, Singapore, Sweden, and the Netherlands occupy the leading positions in the international rating system according to the Global Competitiveness Index. Assessing the main sub-indices of this Index, it can be argued that these countries position themselves as the main exporters of high-tech equipment and innovative products (Timoshenko, 2016; GDP. The World Bank, 2018). This reaffirms the direct dependence of the level of competitiveness on the country's ability to innovate, on the quality of research institutes, on the share of companies' spending on research and development in their overall structure, on the number of scientists and researchers in the country (the main component sub-indices "Innovations and Factors of Improvement").

Regarding the rating position of Ukraine, during 2000–2017, under the Global Competitiveness Index, it demonstrated wavering dynamics with a significant lag behind highly developed countries with significant competitive advantages. So, according to the World Economic Forum in 2017, Ukraine ranked 85th among the 138 countries that took part in the rating, losing 6 positions in comparison with 2015 and 16 positions in comparison with 2001.

The main reasons that hamper Ukraine's economic growth and significantly affect the regression by the Global Competitiveness Index are as follows:

1. Waste of state funds, abuse of authority, its corruption, and absence of regulatory mechanisms for creating a security environment (as for example, by the "Institutions" component, Ukraine occupied the 130th place in 2015 and 129th in 2017). According to the given sub-indicator, in the rating of the Global Competitiveness Index, the Ukrainian economy, with full responsibility, can be characterized as kleptocratic, when corruption and abuse are the basis of society's life.

2. By the "Macroeconomic Environment" component, in 2017 Ukraine occupied the 128th place, which is 23 positions lower than in 2015. Of great concern is the decline in rating positions by the indicators "Inflation" and "Government Debt";

positive growth was noted in the rating according to the indicators such as "Government Budget Balance" and "Gross National Savings". The reduction of the country's credit rating by almost 2 times (from 66th place in the rating in 2015 to 113th in 2017) is caused by an increase in public debt – according to the Ministry of Finance, the state and state-guaranteed debt of Ukraine in 2015 amounted to 65.5 billion USD, and as of December 31, 2016, it amounted to 1929.76 billion UAH or 70.97 billion USD (Statystyka, 2018). The average annual growth rate of inflation is fixed in the following sizes: in 2014 – 112.1%; in 2015 – 148.7%; in 2016 – 113.9% (Summary table of inflation indexes, 2018).

3. Ukraine occupies the last positions in the ranking by the index "Goods Market Efficiency" (for example, in 2014 – 112th among 142 studied countries, in 2015 – 106th among 140 countries, in 2016 – 108 among 139 countries). Despite the improvement of Ukraine's rating positions by this sub-indicator, the competitive environment in Ukraine does not create incentives for entrepreneurial activity; there are no mechanisms for stimulating the development of small and medium-sized enterprises (The position of Ukraine in the world ranking according to the Global Competitiveness Index 2016-2017).

4. The deteriorating position in the development of the financial market (for 2014–2017, Ukraine lost 23 rating positions and ranked 130th) due to inefficient monetary system, in particular, instability of the banking system (according to the NBU, there are more than 80 banks at the stage of liquidation, and payments from the Deposit Guarantee Fund reached 9% of GDP); fairly low availability of financial services and lack of venture capital.

At the same time, in 2017 compared with 2014, Ukraine significantly improved its positions by the following indices: "Higher Education and Training" by 7 positions, in particular, there were positive changes according to the following sub-indices: "Quality of the Education System", "Quality of Math and Science Education", "Internet Access in Schools"; as for "Labour Market Efficiency", positive dynamics is marked by the following components: "Flexibility of Wage Determination", "Effect of Taxation on Incentives to Work", "Country Capacity to Retain Talent", "Country Capacity to Attract Talent"; "Innovation".

3. Conclusions

Thus, state management of the development of accelerated integration into world markets and a high level of foreign economic openness are not a guarantee of accelerated economic development, an increase of the international competitiveness of the country. The prerequisites for sustainable long-term economic growth and social progress are issues of domestic economic policy and, in particular, of an institutional nature, which can stimulate self-sustaining development factors, are oriented towards the use of modern innovative technologies and highly skilled human potential.

At the same time, the current state of financial and legal relations allows, in our opinion, noting a few significant problems in the financial services market of Ukraine, namely: 1) insufficient size of own and regulatory capital of banks over the deterioration of the quality of loans and other assets and the creation of additional reserves for active operations; 2) a mass exit of large European players in the financial services market from Ukraine; 3) decrease in the volume of trades on domestic exchanges; 4) low level of assets of the pension system; 5) insufficient level or complete absence of guarantees of rights to protect the interests of consumers of financial services (including borrowers) and creditors; 6) low-level standards of banking solvency and liquidity management; 7) lack of proper stock market infrastructure; 8) ineffective tax legislation regarding the taxation of investment income and financial services market participants; 9) the abuse of individual financial institutions in terms of loan agreements; 10) low financial literacy of the population; 11) low efficiency of supervision of banks and other financial institutions, which does not allow preventing the development of risks; 12) limited powers and independence of regulators to take measures of influence on participants in the financial sector.

The liberalization of capital movements in Ukraine has no alternative since Article 145 of the Association Agreement between Ukraine and the EU, ratified by the Law of Ukraine as of 16.09.2014 No. 1678-VII provides for harmonization of the legislation of Ukraine with regard to ensuring the free movement of capital in accordance with European standards.

In order to increase the level of competitiveness of the national economy, it is necessary to implement a complex of the following interconnected and consistent organizational and legal measures. In particular: 1) in order to improve rating positions and competitive advantages of Ukraine in global markets, it is necessary to develop additive legal framework and state support program for export-oriented enterprises for the promotion of export of finished products with high added value; 2) determine the course of the policy of expansion on the basis of expanding both geographical and commodity structure of exports; 3) at the legislative level, support the course of development of the national economy on the basis of self-sufficiency and the policy of "protectionism", which will create an opportunity to reduce the level of import of the country, increase the national economy and in general, will positively affect the economic competitiveness of Ukraine.

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METHODOLOGICAL PRINCIPLES OF EVALUATION OF INVESTMENT ATTRACTIVENESS OF THE ENTERPRISE

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Abstract. The *purpose* of the research is a complex of theoretical and applied provisions on the formation, evaluation, and improvement of the methodology of evaluation of the investment attractiveness of enterprises. *Methodology.* In the process of research, the following methods were used: methods of comparison, analysis and synthesis is used in determining the features of conceptual approaches to the concept of investment attractiveness of an enterprise and the formation of the author's definition of this category; method of diagnostic evaluation is used in the evaluation of existing models for analysing the investment attractiveness of enterprises; method of expert evaluation is used for the building of flexible limits of levels of investment attractiveness of the enterprise; methods of system and structural analysis is used for developing the basic elements and the general structure of the model of interpretation of the method of graphical integration; the method of graphic integration is used within the construction of graphs of investment attractiveness of enterprises A and B. *The aim of the study* is to justify of the approach to create a model that can justify of the feasibility of investing and determine the factors and conditions of investment attractiveness of the enterprise for different participants of the investment process. *The findings of the study.* The results of the research suggested an improved definition of the concept of investment attractiveness of the enterprise, which took into account the following disadvantages of existing approaches to the present essence of the concept: the investment attractiveness of the enterprise is often associated with the system of financial and economic indicators of the activity of enterprise, while not taking into account also an important social and psychological factor, since the very name of the term "investment attractiveness of the enterprise" includes the social-psychological element in the form of the concept of "attractiveness", which is widely used in economic literature; the subjective view of the potential investor on the fact that the object being considered for investing to satisfy the investor's expectations regarding the economic or social effect is significant. This aspect is key in determining of concept of investment attractiveness of the enterprise, when choosing an investor of an enterprise to invest its capital for the purpose of investing; it is necessary to achieve consistency and symbiosis between the evaluation of financial and economic, socio-psychological, industrial, innovative, environmental and other factors, which in the complex form the investment attractiveness of the enterprise; using the expression "high level of profitability on investment with minimal risks" is partially incorrect in some definitions of the investment attractiveness of the enterprise since obtaining high profits involves a certain level of risk and each investor knows about this; the importance of increasing the investment attractiveness of the enterprise has the level of involvement of innovation in the activities of the enterprise in the frames of use of investment capital; the targeting of almost all definitions only on high financial and economic indicators, which, depending on the situation, are not always correct. A complex system of indicators for evaluation of the investment attractiveness of an enterprise is proposed, consisting of six groups of indicators (market position, property complex, profitability, financial stability, risks, innovative potential), each of which includes six coefficients determining the level of investment attractiveness for this group. The features and advantages of this system of indicators are: complexity and complementary to standard methods with indicators of the level of investment risk and innovative potential of enterprises; standardization of indicators; unidirectionality of indicators; Flexibility of the recommended limits for each coefficient. The method of graphical integration of the investment attractiveness of the enterprise, which has several advantages over other methods, proposed in the scientific literature, is offered because: it is a combination that includes the advantages of an integral method, as well as a market, and partially matrix method; it allows quantifying various aspects of economic activity of the enterprise by the elementary calculation of a certain number

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of coefficients; it does not require significant time to spend on the evaluation; it has a mathematical justification since the final indicators for comparing the investment attractiveness of several enterprises are calculated using the numerical integration method; it has the flexibility of determining the level of investment attractiveness of an enterprise by incorporating into the methodology in accordance with the socio-psychological component of the concept of investment attractiveness and the interests of the investor; gives a visual interpretation of the results of investment attractiveness assessment.

Key words: investments, investment attractiveness of enterprise, complex evaluation of investment attractiveness, method of graphic integration, coefficients of investment attractiveness, profitability, financial stability, investment risk.

JEL Classification: D24, D25, C02, C18

1. Introduction

In order to attract investment resources effectively, every economic entity has to have an investment attractiveness, which enables it to realize its competitive potential completely, to expand and improve production activity, to implement innovations and results of Research & Development (R&D) in its activity, to have a positive impact on the growth of the attractiveness of the country's investment environment. In this regard, the first step in solving this task for the enterprise should be to determine the necessary parameters of the existing level of its investment attractiveness in the framework of one or another methodology. That is, there is a need for a qualitative and skilled integrated evaluation of the investment attractiveness of the enterprise in terms of a large number of parameters and components, which determine the level of investor interest in investing.

Despite the rather deep research of the mentioned problem, some of its aspects, in particular, those relating to the development of an effective methodology for assessing the investment attractiveness of an enterprise, have not yet been resolved, remain controversial and require further research.

In particular, a new aspect of the research of this topic is the innovative approach for evaluating of the investment attractiveness of enterprises, which involves using the model of interpretation of the method of graphical integration of the investment attractiveness of an enterprise to analyse the efficiency of investments. In addition, the complex system of indicators of investment attractiveness of the enterprise, which according to the proposed structure includes analysis of the market position, property complex, profitability, financial stability, riskiness and investment potential of the enterprise, has been improved and brought to a new level. Also, the approach to the concept of investment attractiveness of the enterprise was improved, which took into account the influence of modern concepts on the structure of this definition, in particular: the concept of integral assessment of enterprise indicators the concept of economic and psychological satisfaction of the investor, the concept of the complex of conditions and characteristics of the enterprise, the concept of the prospects of development of the enterprise, the concept of factor analysis, the efficiency of investment.

The methodological basis of the research is a complex of general scientific and special principles, provisions and methods of scientific research, the use of which is due to the goals and objectives, in particular, the methods of comparison, analysis and synthesis, the method of diagnostic evaluation, the method of expert evaluations, and the method of graphical integration.

Given the foregoing, the purpose of the study is to justify the approach to create a model that can justify the feasibility of investing and determine the factors and conditions of investment attractiveness of the enterprise for different participants in the investment process. This approach involves performing the following tasks:
- definition of the essence and features of the concept of investment attractiveness of the enterprise in accordance with modern conceptual approaches;
- formation of a clear system of indicators for choosing the most effective directions for the investor from the point of view of external and internal conditions of investment;
- development of an effective methodology for complex analysis of investment attractiveness of the enterprise, which would combine the advantages of existing techniques, to be representative and practical for use in enterprises of any branch.

2. Definition of investment attractiveness of the enterprise

After reviewing and analysing existing approaches in science, and also having considered the definition of investment attractiveness of the enterprise considering the features of the identified concepts, we came to the following interpretation. We believe that the investment attractiveness of an enterprise should be interpreted as a complex indicator of the existing and potentially possible level of enterprise development, which is expressed in a set of conditions and characteristics of the enterprise's activities and in the system of integrated values that are reflecting the financial-economic, production, social, innovative, environmental, and legal aspects of the enterprise's activities and provide the investor's personal interest in investment in order to increase this investment or to obtain a social effect.

The advantages of proposed definition are, firstly, the complexity of this determination and the consideration in its structure of all elements of the concepts found in the scientific literature, from the integral assessment and factor analysis, the conditions of the enterprise, to perspective approach and obligatory inclusion in the definition a socio-psychological component; secondly, the proposed definition takes into account not only the economic benefits of investment but also the social component, a high level of it can in some situations exceed several times the commercial effect.

3. Methodology algorithm of evaluation of the investment attractiveness of the enterprise

The theme of choosing the most effective method of evaluation of the investment attractiveness of an enterprise is still debatable for today. Since there is a large number of evaluation techniques of the investment attractiveness that can be divided into the following groups: evaluation of investment attractiveness of the enterprise on the basis of integral indicators of its financial condition; analysis of external information about the company through the use of a market approach; evaluation of internal and external characteristics of the enterprise through the use of a combined approach; evaluation based on an analysis of the uncertainty about future outcomes and opportunities and the expectations of these results presented by the strategic approach. All of these approaches do not exclude each other, so they can be combined in various interpretations, which help to expand the possibilities of evaluation of the enterprise in the framework of the analysis.

Based on the study of approaches, we propose a comprehensive methodology for evaluating the investment attractiveness of the enterprise. It includes elements of both integral, market, and combination approaches, each of it clearly shows the evaluation of the main results of the company's activities in the market. The basis of evaluation is the method of graphical integration that is a developed methodology that combines in the final version elements of matrix, graphics and mathematical analysis, which is its advantage.

Complex evaluation of investment attractiveness of the enterprise using method of graphics integration is shown below.

1. Selection of data for the analysis of the investigated enterprises by a complex system of indicators of investment attractiveness of the enterprise and carrying out of corresponding calculations. Indicators for analysis and the peculiarities of their application are considered within our research below.

2. Determination of boundaries for high and low investment attractiveness of enterprises by expert evaluation and considering recommended values of indicators. As well as determining the weight of each of the proposed six groups of indicators in accordance with the objectives of the investment project.

3. Construction of the model of investment attractiveness by bring in on the area high, medium, and low investment attractiveness levels and graphs of comparable enterprises in accordance with the 36 values of the calculated indicators and their analysis according to the received graphs (in what area of attractiveness is there for the most part a schedule for which groups of indicators the enterprise has weak or strong sides, etc.). This stage also includes the ability to build charts of the same company in a dynamic for several years to determine not only the current state of indicators but also their trends.

4. The final stage of evaluation of investment attractiveness involves determining the level of quantification using summary measure. That is an integral factor of the investment attractiveness of the enterprise, which is calculated by the method of numerical integration, and in particular, by the method of medium rectangles. This method implements the replacement of an integral by an integral sum that uses the value of a function in the middle points of elementary segments:

$$y = \int_a^b f(x)\,dx \approx h \times \sum_{1=1}^{n} f(x_i) \approx h[y_{\frac{1}{2}} + y_{\frac{3}{2}} + \ldots + y_{\frac{1(2n-1)}{2}}], \quad (1)$$

$$x_i = a + i \times h - \frac{h}{2}, \quad (2)$$

where, h – the weight of the coefficient, and in the graphical interpretation – the value of the step.

The integration is performed using piecewise constant interpolation, each elementary interval to interval [a, b] the function f (x) approaches a function that takes constant values. In other words, there is a summation of elementary squares of rectangles under the integral function curve.

4. A complex system of indicators of investment attractiveness of the enterprise

A complex system of indicators for the evaluation of investment attractiveness of the enterprise consists of six groups of indicators is offered. These groups are market position, property complex, profitability, financial stability, risks, innovative potential. Each of these groups includes six coefficients that determine the level of investment attractiveness according to this group (Table 1).

The peculiarities and advantages of this system of indicators in comparison with other options for evaluation techniques, found in the scientific literature, are:

- Complexity, which allows not analysing just individual elements of the efficiency of the company's operation, but obtaining a complete and general interpretation of all indicators that are important when making an investor decision;

- Supplementation of standard methods by indicators of the level of investment risk and innovative potential of enterprises;
- All indicators of the enterprise are standardized and suitable for the analysis of the activity of the enterprise of any branch and legal form at the expense of using the method of determining the relative coefficients;
- That the interpretation of the results was correct in the system of indicators eliminated the possibility of their "versatility" by calculating the disintegrators as an inverse value;
- For each coefficient, there are two variants of limits: mathematical and recommended, in which the recommended limits are partially determined by the expert method for each individual project since the only recommended limit for these indicators does not exist. The closer or higher the coefficient to 1, so is much better. This is due to the economic content of these indicators. If their value is high and the resources are fully involved, then is better the financial performance and greater the investment attractiveness of the enterprise.

Table 1

A complex system of indicators of investment attractiveness of an enterprise

Symbol	Indicators for evaluation of the investment attractiveness of an enterprise	Formula	The essence of the symbols in the formula	limits, recommended limits
1. Market position				
x1	The coefficient of market activity in the industry	$Vpe \div Vi$	Vpe – the volume of production of the enterprise, units; Vi – the volume of industry, units.	[0;1], expert evaluation
x2	The coefficient of market power of the enterprise (Lerner)	$\frac{Pg - Meg}{Pg}$	Pg – the price of goods, money units; Meg – the marginal costs of goods produced, money units;	(0;∞], expert evaluation
x3	The attractiveness of the product for the consumer	$D \div S$	D – demand for products of a certain type, units; S – supply of similar products on the market, units.	[0;∞], expert evaluation
x4	The ratio of the market and book value of the enterprise	$Mve \div E$	Mve – market value (capitalization) of enterprise, money units; E – equity, money units.	(0;∞], (1;∞]
x5	The coefficient of growth of the value of the enterprise	$\frac{Mve * IAr}{Ri + Rr * (1 - \mathrm{P}e)}$	Mve – market value (capitalization) of the enterprise, money units; IAr – investment attractiveness of the region; Ri – return on investment, money units; Rr – the rate of return of capital, money units; Pe – the proportion of land in the total object cost, money units.	(0;∞], (1;∞]
x6	Equity Ratio	$Msp \div Ps$	Msp – market share price, money units; Ps – proceeds per share, money units.	(0;∞], (1;∞]
2. Property complex				
x7	The ratio of potential gross income from real estate and land	$\frac{Apl * Rsq + All * Rha}{Aid}$	Apl – area of premises leased sq.m.; All – land area, leased, ha; Rsq – rental rate for 1 sq.m. money units; Rha – rent per 1 ha, money units; Aid – accrued interest on the deposit amount invested in the bank, money units.	(0;∞], expert evaluation
x8	Fixed asset refresh rate	$Iv \div Ic$	Iv – the initial value of fixed assets received during the reporting period, money units; Ic – the initial cost of fixed assets on the balance sheet of the enterprise at the end of the period, money units.	(0;∞], expert evaluation
x9	Fixed assets ratio	$1 - Noe \div Tne$	Noe – the number of outdated equipment, machinery and equipment, units; Tne – total number of equipment, machinery and equipment, units.	[0;1], [0,5;1]
x10	The factor of production potential	$\frac{Vf + Vc}{Bc}$	Vf – the value of fixed assets, money units; Vc – the value of current assets, money units; Bc – balance currency, money units.	(0;1], expert evaluation

(Continuation of Table 1)

x11	Constant asset ratio	$NAc \div E$	NAc – non-current assets, money units; E – equity, money units.	(0;1], expert evaluation
x12	The coefficient of territorial attractiveness	$1 - (Dc \div Tc)$	Dc -distribution costs, money units; Tc – total costs, money units	[0;1], [0,5;1]
3. Profitability				
x13	Total profitability ratio	$Si \div Pcs$	Si – sales income (works, services), money units; Pcs – production costs for sales (its production cost), money units.	x ∈ ∞, (0;∞]
x14	Rate of return	$\frac{Si}{Aaf + Aac}$	Si – sales income (works, services), money units; Aaf, Aac – average annual cost respectively of fixed and current assets, money units	x ∈ ∞, (0;∞]
x15	Return on financial investments	$Np \div Fi$	Np – Net profit (loss), money units; Fi – financial investments, money units.	x ∈ ∞, [0;∞]
x16	Return on equity ratio	$Np \div E$	Np – net profit (loss), money units; E – equity, money units.	x ∈ ∞, (0;∞]
x17	Return on assets ratio	$Np \div Bc$	Np – net profit (loss), money units; Bc – balance currency, money units.	x ∈ ∞, (0;∞]
x18	Rate of return on business	$Np \div Ni$	Np – net profit (loss), money units; Ni – net income from sales of products (goods, works, services), money units.	x ∈ ∞, (0;∞]
4. Financial stability				
x19	The coefficient of financial stability	$E \div Dep$	E – equity, money units; Dep – debt capital, money units.	(0;∞], expert evaluation
x20	Financial stability ratio	$\frac{E + Ltl}{Bc}$	E – equity, money units; Ltl – Long-term liabilities, money units; Bc – balance currency, money units.	(0;1], [0,5;0,9]
x21	The coefficient of maintenance of own working capital	$\frac{Ca - Cl}{Ca}$	Ca – current assets, money units; Cl – current liabilities, money units.	(0;1], [0,5;0,9]
x22	Equity to total assets ratio	$E \div Bc$	E – equity, money units; Bc – balance currency, money units.	(0;1], [0,5;1]
x23	The coefficient of investment of own and long-term borrowings	$NAc \div Mlt$	NAc – non-current assets, money units; Mlt – means of long-term use, money units.	(0;1], [0,4; 0,9]
x24	Current assets to equity ratio	$Owe \div E$	Owe – own working capital, money units; E – equity, money units.	(0;1], [0,25;0,9]
5. Risks				
x25	Bankruptcy probability factor (Taffler)	$0,53 * y1 + 0,13 * y2 + 0,18 * y3 + 0,16 * y4$	y1 – profitability; y2 – working capital adequacy; y3 – financial risk; y4 – liquidity of the enterprise;	x ∈ ∞, (0,3;∞]
x26	Absolute liquidity ratio	$\frac{C}{Cl + Fin}$	C – cash and cash equivalents, money units; Cl – current liabilities, money units. Fin – future income, money units.	[0;∞], (0,2;0,5]
x27	Country risk index	$ICR \div 100$	ICR – country risk index ICRG - the general index, determined on a 100-point scale based on 22 components of risk, approaching 100 is the lowest risk.	[0;1], expert evaluation
x28	Financial transparency and disclosure	$Avr \div S\max$	Avr – average arithmetic mean of the points made by experts for the transparency of disclosure; Smax – maximum score on which the scale of the phenomenon is estimated (10 points)	[0;1], expert evaluation
x29	The coefficient of diversification of activities of the enterprise	$1 - \frac{\sum_{i=1}^{n} Sa(2Sn - 1)}{100\%}$	Sa – the share of thec i-th type of activity in the structure of commodity products of the enterprise, %; Sn – serial number of the type of activity by the volume of commodity products in the ranked row, constructed according to the downward principle.	(0;1), expert evaluation
x30	Ratio of enterprise compliance market needs	$Vs \div Ts$	Vs – the volume of sales of products that was renewed or improved, unit; Ts – total sales on the market, money units.	[0;1], expert evaluation

(End of Table 1)

6. Innovative potential				
x31	Employment rate by innovative staffing	*Ne ÷ Emav*	Ne – the number of employees employed in the innovation sector, people; Emav – average number of employees of the enterprise, people.	[0;1], expert evaluation
x32	The coefficient of product update	*Pn ÷ Ot*	Pn – the volume of production of new products; Ot – total volume of output, units.	[0;1], expert evaluation
x33	The ratio of investing in innovation	*Fia ÷ Ti*	Fia – the amount of funds allocated for innovation activity, money units; Ti – total investment, money units.	[0;1], expert evaluation
x34	The coefficient of innovation degree	*Ir ÷ It*	Ir – the number of innovations, brought to the realization (innovations), pcs; It – the total number of innovations, pcs.	[0;1], expert evaluation
x35	The coefficient of innovation product sales	*Pin ÷ Pcom*	Pin – the volume of innovative products, units; Pcom – the volume of commodity products, units.	[0;1], expert evaluation
x36	The ratio of research and development costs	*Erd ÷ Eia*	Erd – the amount of research and development expenses, money units; Eia – the amount of expenses for innovation activity, money units.	[0;1], expert evaluation

Source: developed by the author using sources (Arancii, 2011; Budnikova, 2012; Davidenko, Buryak, Demyanenko, 2018; Kaji, Edelman, Khan, 2018; Kakhovska, 2018; Marhaichuk, 2012; Rzayeva, 2016; Skaluk, 2016; Tkachenko, 2013; Umerev. 2013; Volkova, 2016)

The practical value of the proposed integrated system of investment attractiveness indicators for the enterprise is due to the fact that the data regarding the level of investment attractiveness are the basis for assessing the necessary types and volumes of resources and determining the directions of further development of the enterprise.

5. Interpretation of the method of graphic integration of the investment attractiveness of the enterprise

For practical interpretation of the results using the proposed model, compare the investment attractiveness of enterprises A and B. The initial conditions for construction are the distribution of levels of investment attractiveness in accordance with the standard recommended limits of indicators and average market values. An important moment in constructing this model and calculating the results by the formula for numerical integration is the use of a constant step h_i=h=const, (i=1, 2…36). That is, the investor, in this case, gives equal importance to all indicators that characterize the investment attractiveness of the enterprise (Figure 1).

As can be seen from Figure 1, the investment attractiveness of enterprise B is significantly higher, compared with the enterprise A. It shows the graph curve, which predominantly lies in the medium and high investment attractiveness, while the location of curve A prevails in the area of low investment attractiveness, and only the indicators of profitability and low risk of investing may be of interest to the investor. In this case, it is clear that, according to the calculation results, the integral coefficient of enterprise A will be lower than the integral coefficient of enterprise B, since graphically the results of calculating the integrals are equal to the area below the graphs figures under investment attractiveness of enterprises A and B. In this case, there is no doubt that the area of the figure under the schedule of enterprise B is greater than under the schedule of enterprise A. The accuracy of using the formula of the middle rectangles reflects the area filled with rectangles under the schedule of the enterprise A. Miscalculation, which is determined by the calculations of the integral shows the fraction of non-consideration of those parts of the rectangles that are above the schedule of enterprise A. Thus, according to the results of the comparison of the enterprises, the investor will give advantage to the project B.

6. Advantages of the method of graphics integration of investment attractiveness of the enterprise

The main advantages of the method of graphic integration of the investment attractiveness of the enterprise to other methods proposed in the scientific literature are that:

1. This method is combined, it includes the advantages of an integral method, as well as a market and partially matrix method, by splitting the plane of construction of investment attractiveness graphs into separate quantitatively defined zones.

2. It allows quantitatively evaluating various aspects of the economic activity of the enterprise by the elementary calculation of a certain number of coefficients that most completely characterize the current state of the investment object. The system of coefficients, which is the basis of the calculation of the resulting integral coefficient, does not contain specific parameters, which makes it possible to compare enterprises of different industries.

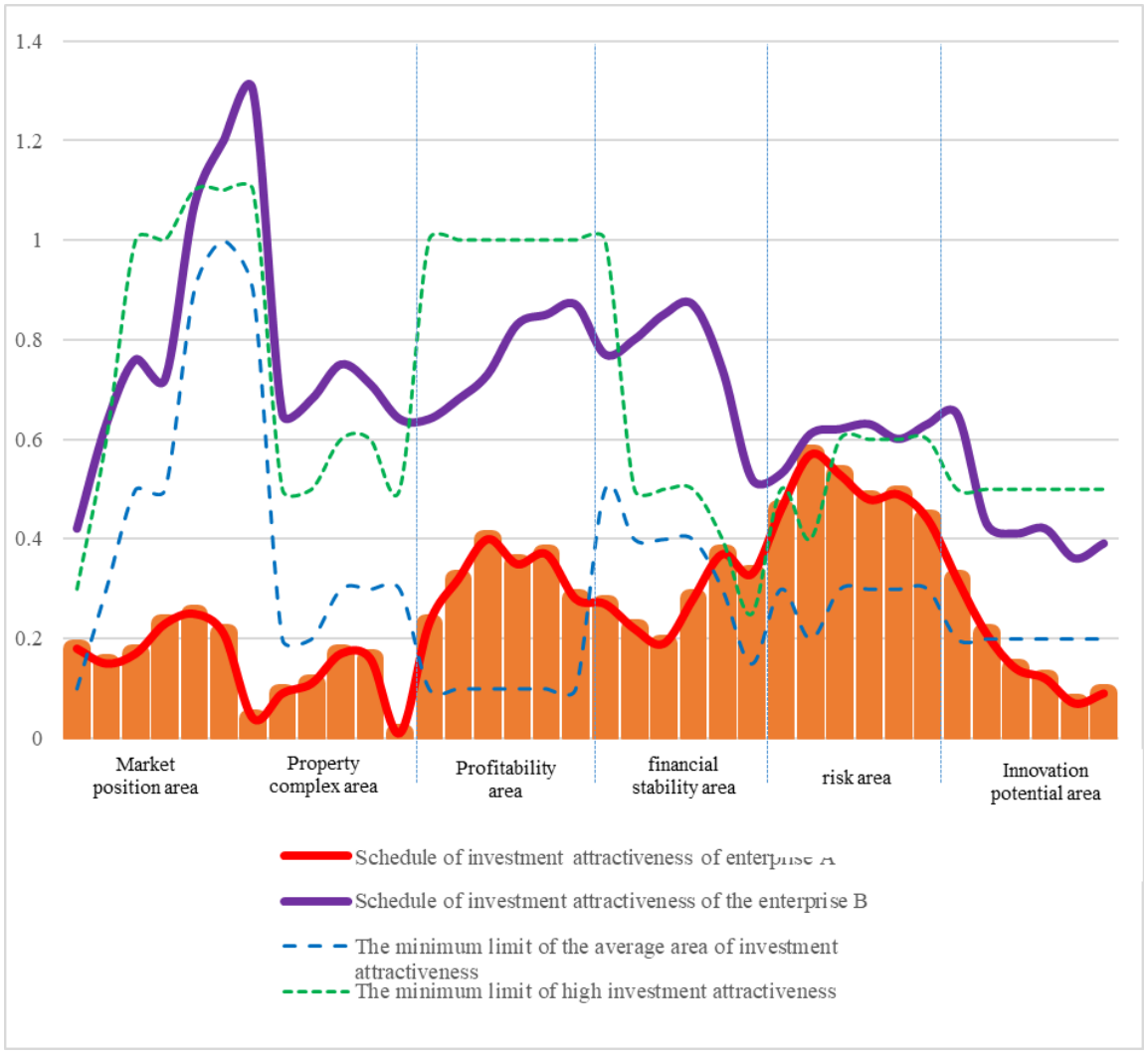

Figure 1. Model of interpretation of the method of graphical integration of investment attractiveness of the enterprise

Source: developed by the author

3. This method does not require significant time to spend on the evaluation, in addition, the calculation of parameters and construction of the model interpretation method can be automated at each enterprise by using a package of standard computer programs.

4. It has a mathematical justification, the final indicators for comparing the investment attractiveness of several enterprises are calculated by numerical integration method, namely, the method of rectangles and are quantified and compared. In addition, for the interpreted results a mathematical tolerance is determined. Of course, to avoid completely the approximate estimates (namely, expert evaluations of markets comparison) in the methodology is not possible, in particular, because the term "investment attractiveness" itself is not frustrated of subjectivism. However, these methods are used exclusively to determine the limits of distribution of low, medium, and high investment attractiveness zones, which for each investor, depending on the investment objectives, environmental conditions and other factors, are different.

5. The flexibility of determining the level of investment attractiveness of an enterprise by incorporating into the methodology, in accordance with the socio-psychological component of the concept of investment attractiveness, the interests of the investor, in particular the possibility of adjusting the limits between the levels of investment attractiveness of an enterprise, and the importance of groups of coefficients, depending on the direction and purpose of investment. So, in our opinion, the use of strict frameworks, as it normally used in most of the matrix approach by analysis of investment attractiveness, is not correct since the division of the scale on the three, for example (low, medium, and high level) are clear equidistant from the maximum and minimum quadrant, and it is not a justification for concluding that for example, an enterprise is not attractive to investors. After all, in the vast majority of techniques, the influence

of external factors, the specifics of the industry is not taken into account, and therefore, the actual values of the indicators may be far from standardized reference, however, subject to modifications to the specifics of the environment or investment objectives, acceptable to the investor. Thus, if the investor's purpose is the presence of a large area of land, buildings and structures, in particular plants and large industrial premises, for the enterprises investment project implementation, which is the prerogative of investment, the profitability indicators of the enterprise practically will not matter, even on the contrary, investing in an unprofitable enterprise may even be on more favourable terms for the investor.

6. A clear interpretation of the results of an investment attractiveness evaluation, which is a significant advantage, since this model is based on the principle of simple use, the availability of the interpretation of results, and does not require specific economic knowledge to understand the result of research, which at times raises its practical significance for use at domestic enterprises of all spheres and branches of activity. In addition, the use of this graphical model allows not only comparing several enterprises on a plane and determining the best option for investment but also following changes in the schedule of investment attractiveness of the enterprise in the dynamics, which will allow identifying the weaknesses of the economic activity of the enterprise more quickly.

7. In order to provide a more comprehensive analysis, it was taken into account additionally to the most frequently used indicators for evaluation the investment attractiveness of the company, as profitability, financial status of the company and market indicators, such important determinants as investment risk and innovative potential of the enterprise and a system of coefficients for their evaluation was developed.

The practical value of the proposed methodological toolkit for the enterprise is due to the fact that the data regarding the investment attractiveness of the enterprise are the basis for evaluating the necessary types and volumes of resources that the investor must own in order to implement his investment project and ensure the strategic level of enterprise development. In general, the use of this model for evaluation the investment attractiveness of an enterprise allows providing an objective description of the financial and economic processes and capabilities of the enterprise, determining trends and dynamics of its development, establishing ways to improve the efficiency of the enterprise taking into account a certain divergence of objectives of the investor and the enterprise as a whole; identifying and liquidating factors that reduce the investment attractiveness of domestic enterprises and, as a result, the investment attractiveness of industries, regions and the country as a whole; on the basis of the obtained results of investment attractiveness evaluation to determine the main directions for investment of funds in order to improve the economic activity of the enterprise, increase its efficiency and competitiveness on the market.

7. Conclusions

The need for continuous development requires from enterprises a large number of regular investments, both in fixed assets and on R&D, also on other goals aimed at achieving the most positive result. The ability to attract an investment directly depends on the level of investment attractiveness of the enterprise. Based on the extremely high significance of this process for the development of the enterprise, the determination of its investment attractiveness should be directed towards the formation of objective, purposeful, and comprehensive information for acceptance an investment decision.

Therefore, during considering the investment attractiveness of the enterprise, it is expedient to use the complex definition proposed by us since its components completely reflect the activity of the evaluated enterprise, take into account the socio-psychological factors and interests of all subjects of the investment process, while not depriving elements of financial and perspective analysis.

Based on the specifics of the definition and the results of comparing different methods of evaluation of the investment attractiveness of the enterprise in the scientific literature, we have proposed a method of graphical integration of investment attractiveness of the enterprise, which has a number of advantages over existing methods: complexity and combination, simplicity and insignificant expenses of time for calculations and model construction, mathematical substantiation, visual interpretation of evaluation results, flexibility of the limits of determining the level of investment attractiveness by taking into account the interests of the investor and the influence of external factors, completing the method of estimation of investment risk and the level of innovation potential of the enterprise. The practical value of the graphical integration method of investment attractiveness for an enterprise is that on the basis of the obtained evaluation results it becomes possible to separate the main directions for investment of funds with the purpose of the most effective realization of the investment project, improvement of economic activity of the enterprise, increase of its efficiency and competitiveness on the market.

Prospects for further research are the development and improvement of the methodology by taking into account the more fully factors of the influence of the environment and the specifics of the region and industry in particular, through qualitative and quantitative evaluation, and the inclusion in the model of the possibility of calculating forecast indicators under the terms of investing a certain amount of investment in one or another sphere of activity of enterprise.

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THE CLASSIFICATION OF SOURCES OF REPRODUCTION OF SHADOW RELATIONS IN THE SPHERE OF PRODUCTION AND REALIZATION OF HOUSING AND COMMUNAL SERVICES

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Abstract. The purpose of this article is to analyse the sources of shadow relations in the sphere of production and realization of housing and communal services (technologies and causes of their occurrence, subjects' complex, level of danger, etc.); the classification of these sources of shadow relations, the definition of priorities in the development of state measures on the localization of certain sources of shadow relations in the field of production and implementation of housing and communal services, depending on the trend of their development, the level of danger to society. *Methodology.* The methodological foundations of research the sources of shadow relations in the field of production and realization of housing and communal services are determined by a set of methods of scientific knowledge, which allow considering the studied topics as a multidimensional, interdisciplinary phenomenon. In the course of scientific research, the following methods were used: scientific abstraction and systemic were used to generalize the current state of the production and realization of housing and communal services, to define a system of administrative measures in order to distinguish its shadow aspects; systematic structural and formal-dogmatic methods allowed exploring and classifying the sources of shadow relations; formal-legal was used to study the regulatory framework governing the relations in the field of study. The paper also uses methods of statistical, comparative analysis, dialectic, extrapolation, etc. *Results.* The classification of sources of shadow relations will allow monitoring of financial and economic capital and document circulation in the sphere of production and realization of housing and communal services in order to determine the whole spectrum of sources of shadow relations – from socially neutral, socially positive, socially-changing (disappearing) sources of the informal sector shadow economy, to socially-variable (newly created), socially negative and antisocial sources of the underground sector of the shadow economy. The isolation of the most dangerous sources of shadow relations, producing a significant illegal potential in the field of production and implementation of housing and communal services will enable the development of a causal rather than a consequential problem and a way to combat the most dangerous acts that are reproducing-progressing sources of the shadow economy in this area of research.

Key words: shadow economy, shadow relations, sources of shadow relations, housing and communal services.

JEL Classification: O17, O18

1. Introduction

As a public phenomenon, the "shadow economy" is inherent in all countries regardless of the model and level of their socio-economic development. However, in domestic and foreign literature, there is no generally accepted definition of this phenomenon, which scientists and practitioners called "shadow economy". First of all, attention is drawn to the existing variety of terms used to define the concept of "shadow economic activity". From the western literature to our domestic use, a lot of them were used: shadow economy, informal economy, hidden economy, non-official economy, secondary economy, black economy, secret economy, underground economy, illegal economy, black market, etc. (Mandybura, 2001).

Such a numerical set of terms is not accidental and reflects not only the lack of unity to the conceptual understanding of this phenomenon but the various aspects and structural components of the "shadow economy" and also emphasizes the internal qualitative complexity of this phenomenon. It was studied by domestic and foreign scholars such as G. Becker,

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So, among Ukrainian scholarly publications on the problems of shadowing of the economy, the views on shadow processes in Ukraine are most fully reflected in the work of O.V. Turchynova "Shadow economy: theoretical foundations of research" (Turchynov, 1995). The author distinguishes four components of the shadow economy:

- unconcealed from state bodies the economic activity, but because of objective and subjective reasons are not taken into account, uncontrollable and tax exempt by the state;
- legal economic activities in the process of which there is a complete or partial evasion of taxes, fees, fines and other mandatory payments, as well as violations of its state regulation (the subject of shadow economic activity receives additional income by violating the current tax and other legislation, which regulates economic activity);
- illegal economic activity deliberately concealed from the state bodies;
- the activity aimed at obtaining income by committing or facilitating the commission of crimes which entail criminal responsibility.

According to Turchynov's definition, the shadow economy is an economic activity that is not taken into account, is not controlled and is not taxed by the state and (or) aimed at obtaining income by violating the current legislation (Turchynov, 1995).

A more detailed analysis of the basic provisions on the definition of the concept, structure, and methods of assessing the shadow economy is given in the writings of Ukrainian scientists, presented in his monograph (Popovych, 2001). In the opinion of the researcher, the definition of the concept of "shadow economy" is repeated in one or another interpretation in the works of most scholars, but it only reflects the upper, general cut of the shadow economy, is not sufficient for the objective representation of the technological structure of the object, subjective and causal composition of the shadow relationships. In his work, the scientist gives his own definition of the concept of "shadow economy". Thus, the shadow economy is a collection of socially-neutral or socially-positive, non-taxable sources of income of citizens received from unreported and non-taxable state types of economic activity, as well as a conglomeration of socially-negative sources of shadow revenues and anti-social sources of shadow capital received through the commission of unlawful but non-criminal shadow acts in those or other segments of socio-economic, financial, civil-legal relations or relations in the field of civil circulation of things, rights, actions of the country as a whole (Turchynov, 1995). Therefore, sources of shadow revenues as elements of the shadow economy component may be any segment of relations that constitutes the movement of goods, rights, actions in the field of civilian turnover of the country.

According to the same author, the constituent elements of the shadow economy are the sources, types, and subspecies of sources of the shadow economy.

The sources of the shadow economy by logical-structural form are the constituent elements of a particular shadow economy sector. According to the content, this is a hand-crafted production economic activity, not taken into account by the state for reasons of exemption from taxes, occasional, insignificant volumes of service income in the "informal sector" of the shadow economy, as well as sources of the "underground sector". Shadow economy – socially negative and anti-social criminalized or non-criminalized acts, illegal or pseudo-legal financial-economic or civil-law operations aimed at the accumulation, reproduction, laundering or legalization of capital illegal origin in the civil circulation of things, rights, actions.

Thus, in the form and content, the source of the shadow economy V. Popovych divides into two types: the sources of the informal and the source of the underground sectors of the shadow economy, as to the structure the author singles out – on the various levels, diverse species or subspecies of sources.

Taking advantage of the theory of the shadowing of the economy by the classifier-matrix of species, subspecies of multilevel, single-profile, and diverse sources of the underground sector of the shadow economy and the general structure of the constituent elements of the shadow economy, Yu. Groshovyk and N. Drugval conducted an investigation of sources of shadow relations in the field of the circulation of intellectual property objects (Groshovyk, 2003) and in the field of foreign economic activity (Drugval, 2004) through the developed conceptual apparatus. The experiments developed by these researchers allowed them to more fully define, on the productive system-methodological level, the existing "single-profile", "diversified" and "multi-level" sources of shadowing of social and economic relations in the sphere of production and realization of housing and communal services; to predict the origin of those sources that for certain reasons may appear in the future and to realize the technology and the causal composition of the occurrence of certain sources of shadow economy, their subject complexes, the level of danger, the power of each of these sources or their structural segments, and set priorities in the development of state measures to localize certain sources of shadow relations in the field of production and implementation of housing and communal services, depending on the tendency of their development, the level of danger to society. This, in turn,

will allow for the development of a causal rather than a consequent problem and a way of combating the most dangerous acts that are reproductive and progressive sources of the shadow economy in this area of research, which, unfortunately (and this will be shown below), is not given proper attention warning.

2. Characteristics of the current state of the sphere of production and realization of housing and communal services in Ukraine

To characterize the current state of affairs, it is enough to give concrete facts. According to the results of work in 2016, losses of housing and communal services enterprises of Ukraine amounted to 5.4 billion hryvnias. Of this amount, the losses of district heating company were 4.1 billion hryvnias. At the same time, debtor indebtedness amounted to 13.3 billion hryvnias in 2016, accounts due from customers 28.0 billion hryvnias (news online, 2018). In 2017, the losses of housing and communal services enterprises of Ukraine already amounted to 6.1 billion hryvnias, respectively, the debt of district heating company went up to 4.3 billion hryvnias, while the indebtedness of the population for consumed housing and communal services amounted to 5.7 billion hryvnias (a briefing note, 2018). As a consequence, there is an inadequate level of technical state of the industry: the share of district heating companies (almost 25%), water supply networks (almost 40%), sewage networks (almost 41%) has considerably increased; nearly twice the loss of thermal energy has increased, water losses have exceeded 50% of the total volume allowed to consumers. Due to unsatisfactory sanitary and technical condition of water supply and sewage facilities and networks, the quality of drinking water deteriorated. Thus, monitoring of water quality in surface water bodies used as sources of centralized water supply of the population showed that the proportion of investigated water samples that did not meet the sanitary and bacteriological standards in 2017 increased by 5% compared to 2015 and amounted to almost a quarter to verified. Consequently, the use of poor-quality drinking water caused an increase in infectious diseases in the population (auditor services site, 2018).

It should be noted that heat supply in the centralized system during the heating period is served at minimum parameters or switched off at all, the schedule of the beginning and end of the heating season is violated. In a number of cities, there is no centralized hot water supply at all.

The list can be continued, but it is already enough to conclude that the housing and communal sector is in critical condition. The reason for this is to a large extent the shadow manifestations.

The above mentioned points to the urgent need for targeted and systematic measures aimed at reducing the economic relations in the sphere of production and realization of housing and communal services: for consideration and analysis not only of the governing bodies directly implementing the state policy in this sphere, but also bodies of public administration, creation of favourable economic, organizational and legal conditions for the transfer of shadow economic activity to the legal side. But to do this without defining a concept that would help to identify the sources and methods of organized manifestations of the shadow economy in the area of housing and communal services will be impossible.

It is necessary to develop such a concept on the basis of extrapolation of concepts and methodologies developed in the general part of "The theory of unshadowing economy" (Popovych, 2001). At the same time, it is necessary to take into account the specifics of the relations that have developed in the field of production and implementation of housing and communal services.

Thus, shadow relations in the sphere of production and realization of housing and communal services are state-management, economic, and legal relations that arise as a result of deviant behaviour of the subjects of production and sale of housing and communal services or officials of the state, public administration and local self-government in the performance of regulatory, registration, licensing and control functions.

Taking into account the notion of shadow relations in the sphere of production and realization of housing and communal services, it can be concluded that due to its social nature and the level of social danger, the sources of shadow manifestations in the sphere of housing and communal services are socially variable, newly formed socio-negative and antisocial sources of the underground sector of the shadow economy.

Based on a certain notion, we classify the main groups of sources of shadow relations that take place in the field of production and sale of housing and communal services on the following grounds: a group of sources of shadow relations in the field of production and implementation of housing and communal services of a state-management nature; a group of sources of shadow relations in the field of production and implementation of housing and communal services of an economic nature.

3. The group of sources of shadow relations in the field of production and sale of housing and communal services of a state-management nature

This category of shadow relations includes those that arose as a result of the use of imperfect mechanisms for carrying out socio-economic reforms and, consequently, errors in the management of socio-economic processes by the state. As a result, the following points became possible: the development of shadow privatization

of housing and communal services; abuse of official position in making managerial decisions regarding housing and communal services; violation of legal rights and interests of citizens, due to abuse of official position in solving social protection issues of low-income citizens-consumers of housing and communal services; committing others, including financial and economic offenses in the investigated sphere.

It should be noted that the issue of the operational solution of problems in housing and communal services reform and the development of legislative and other normative legal acts regulating the relations in this area was entrusted in 1999 to the Interdepartmental Commission on Implementation of the Housing and Communal Services Reform. However, this commission has never conducted a meeting. There is no single state regulator of the municipal services market, and the functions on implementation of state policy in this area have been scattered among different central executive authorities (Ministry of Housing and Communal Services of Ukraine, State Housing and Municipal Inspection of Ukraine, State Inspection on Control at prices, the National Electricity Regulatory Commission of Ukraine, the Antimonopoly Committee of Ukraine). As a result, there was no single approach to the formation of tariffs on the utility market and the settlement of such services. In practice, this has led to large differences between the levels of tariffs for housing and communal services (housing and communal services certificate, 2016).

In all civilized countries, natural monopolies, such as communal enterprises, are the object of regulation of the state whose main task is to maximally protect the interests of the consumer by creating such legislative conditions for the work of these enterprises, which would maximally bring them closer to work in a competitive environment. Otherwise, the situation will be the same: at first, everything is plundering, and then the tariffs are raised to put everything in order. And since there are no conditions that would make it more effective to use investment resources, some of them are plundering again. This process tends to be infinite. Utility tariffs are rising almost every year inappropriately to the level of inflationary costs. Let's consider this question in more detail.

I. The group of sources of shadow relations in the sphere of production and sale of housing and communal services of a state-management nature:

1) the sources of shadow relations are associated with ineffective management of economic processes by public authorities.

The ways of such shadow manifestations are reflected in the adoption of organizational and legal decisions regarding the market transformation of socio-economic relations without the necessary adaptation to the economic and legal environment of the country and, as a result, produce negative shadow processes at the level of self-regulatory reproduction. The situation is aggravated by the lack of integrated control-information systems and the system of organizational, managerial, accounting, technological and legal institutions adapted to market relations.

In order to establish concrete methods and technology of shadow manifestations, it is enough to analyse the adopted regulatory legal acts regulating relations in the sphere of production and realization of housing and communal services, for their conformity to the economic and legal environment of the country, for this purpose it is necessary to conduct their economic legal examination and to use the classifier-matrix of economic and criminological monitoring of relations in the field of financial and economic turnover of things, rights, actions (Popovych, 2001).

Subjects of this category of shadow manifestations can be officials of legislative and executive power.

This category of methods of shadow manifestations is one of the most dangerous categories, because it causes the economic crisis, undermines the economic stability of the state, forms a negative attitude of the population towards the government and the state as a whole.

2) the sources of shadow relations are associated with ineffective administrative and municipal reforms, the incompleteness of the distribution of state and communal ownership, privatization processes in the communal sphere.

As a result of the reform of state power, according to the Law of Ukraine "On Local Self-Government in Ukraine" (1997) there is the creation of: systems of local self-government as public authorities of territorial communities and systems of bodies of state executive power submitted by local state administrations in accordance with the Law of Ukraine "On Local State Administrations" (1999).

However, the unclear legislative separation of their functions and powers, including in the sphere of production and sale of housing and communal services, became one of the sources of production of shadow relations in the investigated sphere.

Thus, because of the blurring of the delineation of powers and the different understanding of the limits of their own competence, is not clearly defined by the laws, separate bodies, as the practice of law enforcement shows, often conflict with each other. Particularly "problematic" is the relationship between regional state administrations and local self-government bodies at the level of villages, towns, and cities of district subordination and District Councils, as well as between regional state administrations and local governments of cities of regional subordination and Regional Councils (Komziuk, 2002). This is especially noticeable in branch laws, where the competence of local bodies of executive power and local self-government is often identical or defined in one and the same article. For example, according to the Law of Ukraine "On Housing and Communal Services" (The Law of Ukraine On Housing and Communal Services, 2004), local

self-government bodies have the right to set prices/tariffs, approve consumption and quality standards for housing and communal services, manage objects in the housing and communal services sector, located in the communal property of the respective territorial communities, etc., while in the Article 28 of the Law of Ukraine "On Local Self-Government in Ukraine" (1997) the powers of the executive self-regulatory bodies of village, town, and city councils include the establishment of tariffs for the payment of domestic, communal, transport and other services provided by enterprises and organizations of communal property of the certain territorial community; approval in the established order of these issues with enterprises, institutions and organizations that do not belong to communal property.

In accordance with Article 18 of the Law of Ukraine "On Local State Administrations" (1999), the authority to regulate prices and tariffs for the implementation of works and provision of housing and communal services by enterprises, as well as the definition and establishment of norms for their consumption, the exercise of control over their compliance, are owned by local state authorities.

Such legislative uncertainty and fuzziness have become a powerful source of shadow relations in the field of production and implementation of housing and communal services. As it enables the representatives of the above-mentioned bodies to influence the processes of shadow objects privatization of housing and communal services and makes it possible to use money from the privatization of communal objects improperly.

3) a group of sources related to ineffective control by the activity of producers and providers of housing and communal services.

Regarding control and oversight functions, which should be carried out by public organizations, they are still in declarative form in the sphere of production and sale of housing and communal services since no normative act has given them control and oversight functions in relation to quality control, quantity, prices/tariffs for housing and communal services, did not establish an effective mechanism of their interaction with other bodies that have the rights to exercise control and supervision functions in the housing and communal sphere, subjects of management in the investigated sphere. Such legislative misregulation is also one of the sources of shadow relations in the housing and communal sector, as it promotes the shadowing of this segment of public relations.

4) the sources of shadow relations arising from offenses related to state registration, licensing and control functions of officials of state administration and local self-government bodies.

Such relations are the result of uncontrollability, irresponsibility of officials, cases of violations of the procedure for distributing budget funds, grants, licenses, etc., established by the current legislation, and the lack of reasonableness of organizational and legal decisions that led to the reverse effect, that is, the deepening of shadow relations and the creation of a new victimization, as an example to monitor the decision to replace the privileges for targeted subsidies for the payment of housing services.

5) a group of sources of shadow relations arising from administrative delinquencies.

This category of sources of shadow relations stems from administrative delicts and may not always have signs of economic activity. These are various administrative violations in the sphere of production and sale of housing and communal services, such as "Violation of the rules for the improvement of the territories of cities and other settlements" (Article 152 of Code of Ukraine on Administrative Offenses; "Violation of the legislation on protection consumer rights" (Article 156-1 Code of Ukraine on Administrative Offenses); "Violation of the order of formation and application of prices and tariffs" (Article 165-2 Code of Ukraine on Administrative Offenses); "Abuse of monopoly position in the market" (Article 166-1 Code of Ukraine on Administrative Offenses); "Issue and sales of products that do not meet the requirement standards" (Article 167 Code of Ukraine on Administrative Offenses); "Execution of works, providing services to citizens-consumers that do not meet the standard requirements, norms and rules" (Article 168-1 Code of Ukraine on Administrative Offenses), etc.

II. The group of sources of shadow relations in the sphere of production and sale of housing and communal services of an economic nature:

1) the sources of shadow relations arising from financial and economic violations in the sphere of production and sale of housing and communal services.

This category includes:

1. The sources of shadow relations arising from non-compliance with the methodology of reformed accounting, in accordance with the Law of Ukraine "On Accounting and Financial Reporting in Ukraine" (1999), accounting falsification.

2. The sources of shadow relations that arise as a result of the absence of legislative limitations on the marginal level of individual resource costs, technological costs and losses of water, heat at utility enterprises.

3. The sources of shadow relations that arise as a result of violation of tax laws. The scheme of evasion from taxes is given in Figure 1.

№ 1, 2 – Teplofikator TOV purchased 2 bills with a discount of 50%, the nominal value of bills – 12 million hryvnias;

№ 3 – supply of heating was carried out by Prydniprovska TPP for the sum of 12 million hryvnias, including VAT – 2 million hryvnias;

№ 4 – TOV "Teplofikator", payments made for electricity received from Prydniprovska TPP are promissory notes

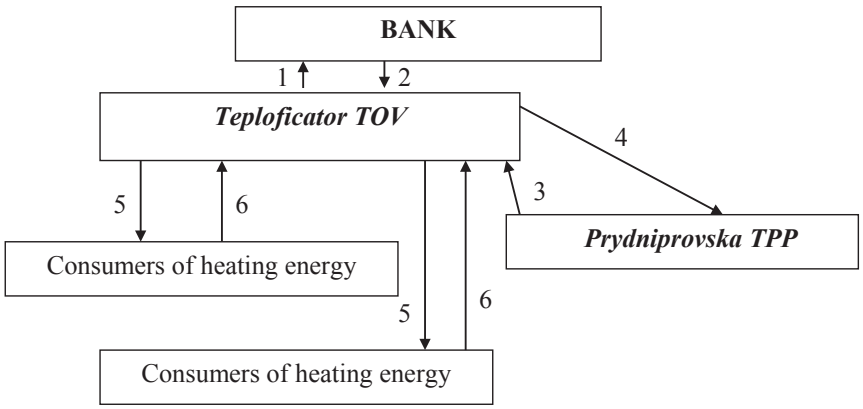

Figure 1. The scheme of tax evasion TOV SPBP "Teploficator" when calculating with the use of promissory notes

with a nominal value of 12 million hryvnias. Including the tax credit is 2 million hryvnias;
№ 5 – TOV "Teploficator" supplies heating energy to consumers for a total cost of 6 million hryvnias, including VAT – 1 million hryvnias;
№ 6 – consumers made calculations in cash.

As a result of the transaction with the use of bills of exchange, the tax liability of TOV "Teploficator" calculated in the amount of 1 million hryvnias, tax credit – 2 million hryvnias. The negative balance for reimbursement from the budget is 1 million hryvnias. Gross expenses amounted to 10 million hryvnias, gross income was 5 million hryvnias, and the loss from the transaction was 5 million hryvnias.

4. The sources of shadow relations that arise as a result of overstatement of material costs during business operations and partial understatement of profits.

5. The sources of shadow relations that arise as a result of the use of the cash method of tax payment for housing and communal services enterprises. There are no precise data for assessing the corresponding loss of enterprises with penalty tax and fines.

The most typical ways of shadow manifestations arising from financial and economic violations in the sphere of production and realization of housing and communal services are the following:
- failure by business entities to meet the requirements for the accounting of fixed assets, inventories, accounts receivable, liabilities, income, expenses, the formation of the production cost of utility services, income tax, etc.;
- non-disclosure in the orders of the accounting policy of the housing and communal enterprise manufacturers working accounts in accordance with the orders of the Ministry of Finance of Ukraine, Guidelines for the application of the plan of accounting for assets, capital, liabilities and business operations of enterprises and organizations (1999), Provisions on documentary records in accounting (1995), Methodical Recommendations on the application of accounting registers (1998), the lack of principles and schemes for the production cost of services, the cost of production spine sales of services, operating expenses, income and financial operations, write-off inventory methods, procedures depreciation on fixed assets, the accounting features and low-value items, of primary documents and quality control of primary documents; absence of revolving balance sheets for reporting periods;
- maintaining the Main Book without decoding debit accounts (only the numbers of log-orders are indicated);
- the inclusion into the structure of tariffs for housing and communal services amounts of bad debts and deductions to the reserve of doubtful debts, recognized fines, penalty taxes, expenses for the maintenance of objects of socio-cultural purposes, recreation centres, payment of travel vouchers, as well as related costs with financial results and source of payments for which there may be profit (bonuses by results of work for the whole year, material benefits for improvement);
- the lack of a clear distinction between financial and tax accounting;
- not creating and not charging a reserve of doubtful debts with significant amounts of current receivables and low solvency of consumers of public utilities;
- incorrect determination and display of the amount of deferred tax assets or liabilities in the balance sheet;
- unjustified overstatement or understatement of the currency of the balance sheet;
- incorrect accounting and writing-off expenses of accessary and assistant productions for the maintenance, operation and repair of fixed assets, for the performance of other services;
- the lack of managerial accounting and calculation of the cost of housing and communal services;
- the formation of tariffs is not based on technical and economic calculations, but by the cost method, that is, on the basis of actual expenses of past periods, the size of which is not sufficiently substantiated;
- abusive use of cash payments for subsidies for housing and communal services;
- overstatement of material expenses during business operations and partial understatement of received profit;

- unjustified increase in tax credit; concealment of objects of taxation; understatement of taxation base.

2) the sources of shadow relations arising from the legitimate types of financial and economic activity of housing and communal enterprises related to pseudo-legal capital and document circulation.

This group includes sources of shadow relations, which stem from the legitimate types of financial and economic activity of housing and communal enterprises related to pseudo-legal capital and document circulation of housing and communal services producers.

Pseudo-legal civil turnover of housing and communal services producers is a set of economic operations of housing and communal services producers using legitimate civil and financial and economic instruments, but from unlawful motives, completely or partially unrecognized in the balance of business entities (for the purpose of theft, evasion from paying taxes, etc.) or fully accounted for, and inherently unlawful (pseudo-legal) shadow transactions.

The sources of shadow relations in this category include:

- operations for the sale of housing and communal services, within which the real price for housing and communal services may be overestimated or underestimated;
- operations for the sale of housing and communal services, within which a normative or over-the-year change in the quantity and quality of services may be issued (in the absence of a real decrease in real volumes or a decrease in the quality of products);
- operations for the sale of housing and communal services, within which separate services may not be delimited in the accounting of expenses not related to the ongoing repairs, the preparation of housing stock for work in winter, and the servicing of indoor water supply and sewerage networks.

The sale of housing and communal services is an independent and rather powerful source of shadow relations because in the absence of metering and regulating water and heat consumption, the producers of housing and communal services may establish overestimated consumption rates. For example, in Sumy and Kyiv, the daily rate of water consumption per capita is 300 litres. And nobody does not bother that an average person is physically unable to use such amount of water. Another example: the rate of gas consumption in Kyiv is almost 5 times higher than in Riga (Semchuk, 2016).

This category of shadow manifestations include:

- reduction in the quantity and quality of services provided when calculating tariffs according to full regulatory and over-regulatory indicators;
- the increase of own expenses due to inclusion in the cost of expenses on unscheduled repairs, excessive losses, unjustified transport losses, etc.;
- registration of only the size of the monthly fee for services without a list of services included in the tariff/price and should be provided for the maintenance of houses and the total living space of the apartment. By the way, the composition of expenditures of housing enterprises, approved by the Cabinet of Ministers of Ukraine (Resolution of the Cabinet of Ministers of Ukraine, 1998), applies to residential premises and is taken into account in the calculation of rent, and a normative act that would determine the composition of expenses for the maintenance of non-residential premises is still absent, which also allows the providers services to resort to offenses, unjustifiably overestimate the price/tariff for services.

3) the sources of shadow relations arising from the production and sale of certain housing and communal services, for which the relevant organizational and legal requirements are established.

This group of sources of shadow relations should include those that are associated with failure of business entities to rules and regulations governing the process of production and implementation of housing and communal services.

The procedure for providing housing and communal services is regulated by the decree of the Cabinet of Ministers of Ukraine "On Approval of the Rules for the provision of services for centralized heating, supply of cold and hot water and drainage, and a standard contract for the provision of district heating services, supply of cold and hot water and drainage" (2005). This resolution deals with the procedure for providing services, their qualitative and quantitative indicators, which must meet the following criteria:

- cold water – sanitary and hygienic requirements regarding the quality of supplied water, as well as estimated water consumption at the point of disassembly (in an apartment or private house of the consumer);
- hot water supply – sanitary and hygienic requirements regarding the quality and temperature of the heated water supplied, as well as the estimated flow of water at the point of disassembly (in an apartment or private home of the consumer);
- the heat supply (central heating) – the standard air temperature in the occupational environment of residential buildings in accordance with sanitary norms and rules provided that consumers take measures for their insulation and providers of housing maintenance services;
- drainage – sewage discharges with the observance of the sanitary-and-hygienic conditions of residential premises, basements of a residential building and adjoining territory.

Failure to comply with the abovementioned requirements in the housing and communal services sector and ineffective control by the authorities-subjects of management in the housing and communal sphere makes it possible to violate the organizational and legal requirements that the production and

implementation of housing and communal services should comply with.

It should also be noted that the requirements for quantitative and qualitative indicators of services should be determined by an agreement that should protect consumers from the arbitrariness of service providers, however, in most cases, it only contains the obligation of the residential utilities payment for consumers. The proposed Model Agreement on Provision of Water, Heat Supply and Wastewater Services to the population (1996) remained a declarative request of the Cabinet of Ministers of Ukraine since it was not taken as the basis by the service providers, and subsequently lost its validity (2005).

Such legal misregulation is a powerful source of shadow relations in the housing and utility sphere.

To this group of sources of shadow relations should be added also those that arise as a result of violations:

– Regulation on the system of maintenance, repair and reconstruction of residential buildings in the cities and villages of Ukraine (state document, 2004), which establishes terms, periodicity, norms for the implementation of current and capital repairs of residential buildings, as well as stipulates the implementation of works on technical maintenance and repair of the internal building sewer system;

– Typical rules of time and standards of service for workers and production personnel involved in the maintenance of housing stock (state document, 2004), which establishes the frequency and standards for cleaning the entrance of a residential building and adjoining territory;

– DBN 360-92 "Planning and development of urban and rural settlements", which defines the terms, periodicity and certain norms for the implementation of landscaping of the adjoining territory (arrangement of flower beds, planting trees, etc.) (state document, 2004);

– The procedure for calculation of housing organizations and enterprises of the Ministry of Energy for the servicing of internal-building power supply systems (Law of Ukraine, 2001);

– Licensing conditions for conducting economic activities for centralized water supply and drainage (Resolution of the National Commission, 2017).

5. Conclusions

The conducted study allowed us to formulate the author's definition of the concept of "shadow relations in the field of production and implementation of housing and communal services", carried out with the help of the developed in the theory of the de-shadowing of the economy (Popovych, 2001) methodology, generalized classification of sources of shadow relations in the field of production and implementation of housing and communal services, depending on the power of shadow capital turnover and public danger regarding the reproduction of shadow relations in this area. Such a classification is necessary for monitoring the financial and economic capital and document circulation in the sphere of production and realization of housing and communal services in order to determine the whole spectrum of sources of shadow relations – from socially neutral, socially positive, socially variable (disappearing) sources of the shadow economy informal sector, to socially-variable (newly formed), socially-negative and antisocial sources of the underground sector of the shadow economy.

Thus, socially-variable, newly formed sources of shadow relations should include groups of shadow relations defined in the second category – in paragraph 1, paragraphs 2; 4; 6; to socially-negative sources of shadow relations should include groups of shadow relations, defined in the first category – points 1; 4, and in the second category – point 1 of subparagraphs 1; 2; and paragraph 2 of sub-paragraph 2; to anti-social, we can include groups of sources of shadow relations, defined in the first category – paragraphs 2; 3; 5 and in the second category – points 2; 3.

The following groups of sources of shadow relations produce significant unlawful potential both in the sphere of production and realization of housing and communal services, as well as in the whole state regulation of financial and economic activity.

Due to the carried out research, it is possible to develop targeted and systematic measures that would be aimed at reducing the economic relations in the sphere of production and implementation of housing and communal services.

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EVALUATION OF THE CONDITIONS OF EFFECTIVE LOGISTIC STRATEGY IMPLEMENTATION OF AN ENTERPRISE ON THE BASIS OF FUNCTIONAL AND COST ANALYSIS

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Abstract. In the context of the current dynamic environment, the complexity of socio-economic objects stipulates the increased requirements for their analysis. The field of strategic logistic management is not an exception. The logistic potential is considered as a control object. Formation elements of the potential determine the conditions for the successful implementation of the selected logistic strategy of an enterprise. The potential of managerial logistic personnel, technological personnel, logistic infrastructure, product and technological innovations in logistics, marketing research, organizational and transfer potential are considered as logistic potential elements. Problems concerning substantiation of logistic strategy selection, determination of the internal conditions to provide its efficient implementation, as well as quantitative measurement of the conditions, are still unstudied. *The purpose of the paper* is to carry out functional and cost analysis (FCA) of logistic potential elements of an enterprise to estimate the correspondence of the internal conditions to the selected logistic strategy. *Methodology.* FCA as a method of research is used. The sequence of the FCA implementation and characteristic of its main stages are considered in the paper. Special attention is paid to expert assessments of the significance of logistic potential elements which are regarded as internal conditions for the strategic changes realization in the area of enterprise logistics. To do that, the paper applies techniques of priority ranking and pairwise comparisons. The consistency of the obtained results is proved statistically. Statistic factor of the relative range has been applied to characterize the dispersion of individual significances obtained for each logistic potential element. *Results.* The paper has developed a sequence of the FCA implementation with the characterization of its basic stages. There has been described preparatory, information, analytical, research, and recommendation stages. The proposed sequence matches a traditional concept of the FCA stages. However, their contents vary depending upon object specifics, identification of objectives and tasks of carrying out analysis. *Value/originality.* The results of the study in the form of the expert evaluation of the significance of the logistic potential elements give an opportunity to plan the costs connected with the introduction of strategic changes in the field of an enterprise logistics.

Key words: logistic potential, logistic strategy, functional and cost analysis, situational profile, logistic costs.

JEL Classification: C81, D78, M11

1. Introduction

In the context of the current dynamic environment, the complexity of socio-economic objects stipulates the increased requirements for their analysis. The field of strategic logistic management is not an exception. Consideration of logistic management at an enterprise helps to understand that provision of the best conditions (opportunities) for the effective implementation of the tendencies for long-term changes is one of its tasks. In this case, the logistic potential can be considered as a management object, as a potential of an enterprise to implement optimization logistic properties while organizing a flow of material, financial, and information resources at the stages of production and logistic chain owing to integration capabilities to coordinate activities of functional subdivisions and availability of the providing conditions (i.e. staff, infrastructure, marketing etc.).

In the strategic context, determination of conditions for a successful implementation of the selected logistic strategy is the general function performed by the logistic potential. The content of specific functions is to concretize the conditions described by the specified behaviour of the logistic potential elements depending upon the type of a strategy selected by an enterprise (Figure 1).

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Elements forming logistic potential	Tendencies of changes in logistic potential elements		
	increasing	stabilization	reduction
1. Potential of managerial logistic personnel			
2. Organizational potential			
3. Potential of managerial innovations			
4. Transfer potential			
5. Potential of logistic infrastructure			
6. Potential of technological personnel			
7. Potential of product and technological innovations in logistics			
8. Potential of marketing research			

Figure 1. Situational profiles of changes in logistic potential elements developed for the selected logistic strategy

Source: Baranets, 2016

Quantitative representation of the logistic potential elements importance can be obtained by means of functional and cost analysis (FCA) helping prevent making inefficient decisions concerning the formation of internal conditions to implement a logistic strategy of an enterprise.

2. The state of research

Academic studies in the field of strategic management of enterprise logistics are of rather stable content, for example, scientific works of the following authors: D. Waters (2009), V. Dybska et al. (2008), V. Sergeiev (2013), Ie. Krykavsky (2004). As a rule, studies determine the idea of logistics strategy, its tendencies, types, description of its development and implementation sequence, and estimation of external conditions. Certain studies such as J. R. Stock and Douglas M. Lambert (2005) concern the development of global logistic strategies, formation and development of strategic plans for supply chains logistics, and their certain links. At the same time, problems concerning substantiation of logistic strategy selection, determination of the internal conditions to provide its efficient implementation, as well as quantitative measurement of the conditions are still unstudied.

The paper is intended to carry out FCA analysis of potential elements of logistics to estimate the correspondence of the internal conditions to the selected logistic strategy. Within the framework of the organized analysis procedure, equivalent characteristics of the significance of the logistic potential elements and the expenditures connected with their formation should be determined.

3. FCA application to evaluate logistic potential of an enterprise

FCA is a technique of feasibility studies of systems aimed at optimizing the relations between their consumer properties and costs. Consumer properties of the object are determined by its usefulness that is an ability to meet certain needs. Taking into account the fact that FCA is orientated to detect the external manifestations of the properties of an object in a certain system of relations then a function is considered as the basic utility component manifests itself in the field of production and consumption. Therefore, the feature of the FCA is to identify a set of expedient functions, which should be performed by a research object under specific circumstances.

FCA feature is a clear performance sequence to be met in the context of any type of its implementation. In the opinion of Senchenko (2011), availability of strictly set action algorithm, as well as the opportunity for a researcher to demonstrate his/her creativity, i.e. to

Table 1

The sequence to implement FCA logistic potential elements to estimate correspondence between the internal conditions and the selected strategy

Stages	Name of the stage according to the selected object to be analysed	A brief description of the stage
1. Preparatory stage	Concretization of the object to be analysed	Logistic potential as a set of the elements, which certain changes create conditions to implement a logistic strategy of an enterprise.
	Identification of an objective	Planning cost structure to create conditions for effective implementation of logistics strategy.
	Statement of the tasks	Detailed evaluation of the conditions within "validity (significance) – cost" format to ensure the efficient implementation of basic types of logistic strategies.
2. Information stage	Collection data of the object under study	Defining the logistic potential components; substantiating their significance (functions) in the context of the necessity to form conditions for the logistic strategy implementation; describing the dynamic characteristics.
		Identifying costs to form the logistic potential elements.
3. Analytical stage	Evaluation of the functions significance	Expert evaluation of the logistic potential elements validity (significance) using methods with the lowest subjectivity level, which provide a simultaneous high-accuracy evaluation.
	Evaluation of the functions' performance	Evaluating the structure costs to form the logistic potential elements as of the current date.
4. Research stage	Construction of the combined FCA diagram	Graphical representation of a ratio between the logistic potential elements validity (significance) and cost structure to form them as of the current date. Identifying the logistics strategy type an enterprise is implementing or is capable of implementing as of the current date. Determining the desirable strategic tendency of changes in the context of the enterprise. Matching the current and perspective evaluation results with the response to a question "Do the formed conditions correspond to the objectives aimed at provision of efficient implementation of the selected tendency of strategic changes?"
5. Recommendation stage	Elaborating the recommendations and measures to eliminate the identified disparities	If the current cost structure cannot provide the necessary conditions of the selected logistic strategy implementation over the following years, it is required to schedule value of total costs to form the logistic potential of an enterprise and to share them to the determined structure for the following year.

Source: the by authors

form independently a strategy to study while keeping procedure sequence of stages, makes it possible to expand FCA sphere.

Thus, the logistic potential of an enterprise is considered as an object of the FCA as a set of elements implementing functions to form conditions for the efficient implementation of a certain logistic strategy.

The paper has developed a sequence of FCA implementation; its basic stages have been characterized in brief (Table 1). The proposed sequence matches a traditional concept of the FCA stages; however, their contents vary depending upon object specifics, identification of objectives and tasks of carrying out analysis.

4. Identification of logistic potential elements and costs for their formation

Preparation stage determines object to be analysed. It was above mentioned that selection of the logistic potential as the object to be analysed is substantiated by means of its performance of functions intended to the provision of the enterprise logistic strategy implementation. The conditions are described by means of changes in the logistic potential elements as for the certain tendencies involving their quantitative evaluation.

FCA is a perspective analysis method; thus, setting its objective in the form of "a cost structure planning to ensure the effective logistics strategy implementation" corresponds to the peculiarity. Formulation of the tasks should be subordinated to the primary objective. It is to estimate specifically conditions in terms of validity (significance)-cost format to ensure the effective implementation of the basic types of logistic strategies.

In general, the idea of information stage is to collect data concerning the object under study; thus, step one of the stage is a determination of the logistic potential components, substantiation of their significance (functions) in the context of the necessity to create conditions for the logistics strategy implementation. The same step also describes dynamic characteristics of implementation conditions of basic types of logistic strategies. Determination of changes in the behaviour of logistic potential elements is meant, i.e. their modelling with the help of situational profiles development (Figure 1).

Step two of the information stage identifies costs to form the logistic potential elements. The problem needs particular attention since it involves: first – the detailed structuring, and second – the improvement of methodological foundations to determine total value taking into account investment and innovative nature of certain types of logistic cost.

It is expedient to use for the step a technique to calculate total costs making it possible to compare both current and long-term investment logistic costs. According to the standard method, the total costs Z are defined as follows:

$$Z = C + EI \quad (1)$$

where C is current production (prime) cost per unit; I is a unit investment; and E is a regulatory factor of the comparative effectiveness of the capital expenditures (cost-effectiveness ratio).

If innovative logistic expenditures are an investment into different (in terms of scientific and technological level) objects, then formula (1) should be adapted to the conditions of complete logistic costs formation and represented in a more correct form:

$$Z_L = C_i + \sum_{i=1}^{n} E_i I_i \quad (2)$$

where, Z_L is the reduced logistic cost; i is the ordinal number of objects of logistic innovations according to the scientific and technological level $(i=1;n)$; E_i is the regulatory factor depending upon the scientific and technological level of the object of logistic innovations; and I_i is the investment in i^{th} type object.

5. Evaluation of the significance of logistic potential elements

The next stage of the FCA is an analytical one, which general idea is to evaluate significance of the object functions and the expenditures connected with their performance. Export estimation is very important to evaluate the significance of the logistic potential elements. If so, S. Beshelev and F. Hurvich (2008) approve that experts fill largely quantitative information gaps.

Formation of the logistic potential can be considered as a function implemented by subfunctions meeting the conditions listed in Figure 1.

It is proposed to use a method of priority ranking (MPA) and a method of pairwise comparisons (MPC) for the expert estimation of the subfunctions significance.

In the context of method one, *m*-objects are selected (i.e. elements of the logistic potential formation). Changes in priority tendencies (decrease, stabilization, progress) have been identified for each of them. The tendencies are com compared in pairs with the use of priority signs >, <, and = indicating respectively the higher, lower and approximately equal importance of each element change to implement the selected strategy. Within the framework of each selected strategy, comparison system of the logistic potential elements is developed taking into consideration situational profile represented in Fig. 1. Then, the adjacency matrix to determine functional significance of each element of the logistic potential formation is developed on the basis of the obtained system. Considering the possibility that the elements of logistic potential can be changed in two directions from their constant state, as well as polar changes from their increasing state to reducing state or backward, the priority ratios can take values from 0 to 1.0 and from 1.0 to 2.0 with 0.5 step.

Table 2 demonstrates the adjacency matrix, which also contains intermediate calculation parameters and the final estimation of the functions significance.

MPC has also been used to determine relative significance of the logistic potential elements. Pairwise comparisons are shown in the form of advantage matrices where each a_{ij} element is a priority level of function u_i over u_j $(i, j = \overline{1, n})$. The expert work is in the fact that while performing a pairwise comparison of a_1, ..., a_n factors, a table of paired comparisons should be filled. If the significance of w_1, w_2,..., w_n are unknown beforehand, then pairwise comparisons of elements are carried out with the use of subjective opinions quantifying on a scale numerically and then the problem of w parameter determination is solved. 9-point Saaty's scale can be used as the estimation scale (Saaty, 2008).

Table 2
The adjacency matrix of the logistic potential elements formed to implement the cost minimization strategy

Function F_i	Function F_i								Sum of values in the line U_i	Absolute priority U_i	Significance H_i
	F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8			
F_1	1	1	1.5	1.5	1.5	1.5	2	2	12	87.5	0.200
F_2	1	1	1.5	1.5	1.5	1.5	2	2	12	87.5	0.200
F_3	0.5	0,5	1	1	1	1	1.5	1.5	8	55.5	0.127
F_4	0.5	0,5	1	1	1	1	1.5	1.5	8	55.5	0.127
F_5	0.5	0,5	1	1	1	1	1.5	1.5	8	55.5	0.127
F_6	0.5	0,5	1	1	1	1	2	2	9	59.0	0.135
F_7	0	0	0.5	0.5	0.5	0	1	1	3.5	19.0	0.042
F_8	0	0	0.5	0.5	0.5	0	1	1	3.5	19.0	0.042
Total										438.5	1.0

Source: the authors' calculations

The range of the scale significance stages makes it possible to evaluate quantitatively the priority of a certain element of the logistic potential not only in terms of the changes fixed at the situational profile but also taking into account possible or more favourable deviations from the procedure. Such variations are evaluated via intermediate values in the Saaty's scale.

Matrix consistency or uniformity is an important issue while developing the pairwise comparisons matrix. Expert determines uniformity index (*UI*) or consistency ratio (*CR*). *CR*≤0.10 is used as the allowable value. Its calculation is based on a comparison of calculated and tabulated values of the consistency index. If in the context of pairwise comparisons matrix *CR*>0.1, then significant disturbance of opinion logic takes place.

Matrices of pairwise comparisons of the logistic potential elements formed to implement basic types of logistic strategies are developed according to the abovementioned explanations. Then, the type of characteristic equations corresponding to the developed matrices, eigenvalues determined as the roots of the equations, maximum eigenvalue of matrix λ_{max}, coordinates of the basic proper vector, index and uniformity ratio are determined.

The procedure of matrices of proper vectors is time-consuming; thus, it is subject to approximation. The method of geometric mean distance measurement between the factors (elements) under estimation is applied (Nikul, 2012).

Table 3 demonstrates results of the calculations according to the listed algorithms of accurate and approximate computations results for the strategy of cost minimization.

Data from Table 4 were used to estimate the consistency of the expert opinions. We can see from the results that the expert evaluations are sufficiently consistent no matter which method of the parameters calculation for pairwise comparison matrix will be selected.

Table 5 represents summarized calculation results of the significance of logistic potential elements depending upon the selected strategy; they were obtained with the help of the above-listed methods. A technique of the data averaging has been applied to obtain the resultative significance of each function (Figure 2).

Statistic factor of relative range r_i has been applied to characterize the dispersion of individual significances obtained for the i^{th} element. A researcher checks, if $r_i \leq 1$ condition is met. Table 6 demonstrates that consistency conditions are met.

Further implementation of the FCA at the analytical stage involves an evaluation of the cost structure related to the logistic potential formation during the current period within the use of the above-mentioned methodological recommendations.

Table 3

Evaluation of the significance of logistic potential elements formed to implement the cost minimization strategy

F_i	F_i								Accurate calculations			Approximate calculations		
	F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8	Proper vector	Normalized proper vector	λ_{max}	Proper vector	Normalized proper vector	λ_{max}
F_1	1	1	5	5	5	5	9	9	1.36	0.27	-	3.87	0.32	2.64
F_2	1	1	5	5	5	5	9	9	1.36	0.27	-	3.87	0.32	2.64
F_3	1/5	1/5	1	1	1	1	5	5	0.58	0.115	-	1.00	0.08	0.66
F_4	1/5	1/5	1	1	1	1	5	5	0.58	0.115	-	1.00	0.08	0.66
F_5	1/5	1/5	1	1	1	1	5	5	0.58	0.115	-	1.00	0.08	0.66
F_6	1/5	1/5	1	1	1	1	5	5	0.58	0.115	-	1.00	0.08	0.66
F_7	1/9	1/9	1/5	1/5	1/5	1/5	1	1	0	0	-	0.26	0.02	0.18
F_8	1/9	1/9	1/5	1/5	1/5	1/5	1	1	0	0	-	0.26	0.02	0.18
Σ									5.04	1.0	**8.27**	12.26	1.0	**8.29**

Source: the authors' calculations

Table 4

Evaluation results of the consistency of the logistic matrices of pairwise comparison of the logistic potential elements

Type of the logistic strategy	Approximate calculations		Accurate calculations	
	Consistency index	Consistency ratio	Consistency index	Consistency ratio
Cost minimization	0.042	0.030	0.038	0.027
Diversification	0.009	0.006	0.012	0.009
Specialization	0.051	0.036	0.057	0.041
Logistic innovations	0.087	0.062	0.128	0.092

Source: the authors' calculations

Table 5

Calculation results of the significance of logistic potential elements depending upon the selected logistic strategy

Logistic strategy	Evaluation methods	Significance of the logistic potential elements							
		F_1	F_2	F_3	F_4	F_5	F_6	F_7	F_8
Cost minimization	priority ranking	0.200	0.200	0.127	0.127	0.127	0.135	0.042	0.042
	pairwise comparisons (approximate)	0.316	0.316	0.082	0.082	0.082	0.082	0.021	0.021
	pairwise comparisons (accurate)	0.270	0.270	0.115	0.115	0.115	0.115	0	0
Diversification	priority ranking	0.156	0.156	0.156	0.148	0.045	0.045	0.148	0.148
	pairwise comparisons (approximate)	0.195	0.195	0.075	0.075	0.034	0.034	0.195	0.195
	pairwise comparisons (accurate)	0.184	0.184	0.114	0.114	0.018	0.018	0.184	0.184
Specialization	priority ranking	0.179	0.179	0.179	0.029	0.108	0.108	0.111	0.108
	pairwise comparisons (approximate)	0.280	0.280	0.111	0.018	0.055	0.055	0.055	0.146
	pairwise comparisons (accurate)	0.241	0.241	0.152	0	0.061	0.061	0.061	0.183
Logistic innovations	priority ranking	0.150	0.084	0.150	0.150	0.150	0.084	0.150	0.084
	pairwise comparisons (approximate)	0.164	0.055	0.164	0.164	0.164	0.055	0.164	0.072
	pairwise comparisons (accurate)	0.142	0.070	0.162	0.162	0.162	0.070	0.162	0.070

Source: the authors' calculations

Table 6

Calculation results of consistency evaluation of the significance of logistic potential elements

Function	Relative range r determined in terms of the strategy:			
	cost minimization	diversification	specialization	logistic innovations
F_1	0.442	0.224	0.435	0.143
F_2	0.442	0.224	0.435	0.423
F_3	0.421	0.696	0.463	0.076
F_4	0.421	0.644	0.703	0.076
F_5	0.421	0.835	0.710	0.076
F_6	0.484	0.835	0.710	0.423
F_7	0.996	0.271	0.738	0.076
F_8	0.996	0.271	0.515	0.161

Source: the authors' calculations

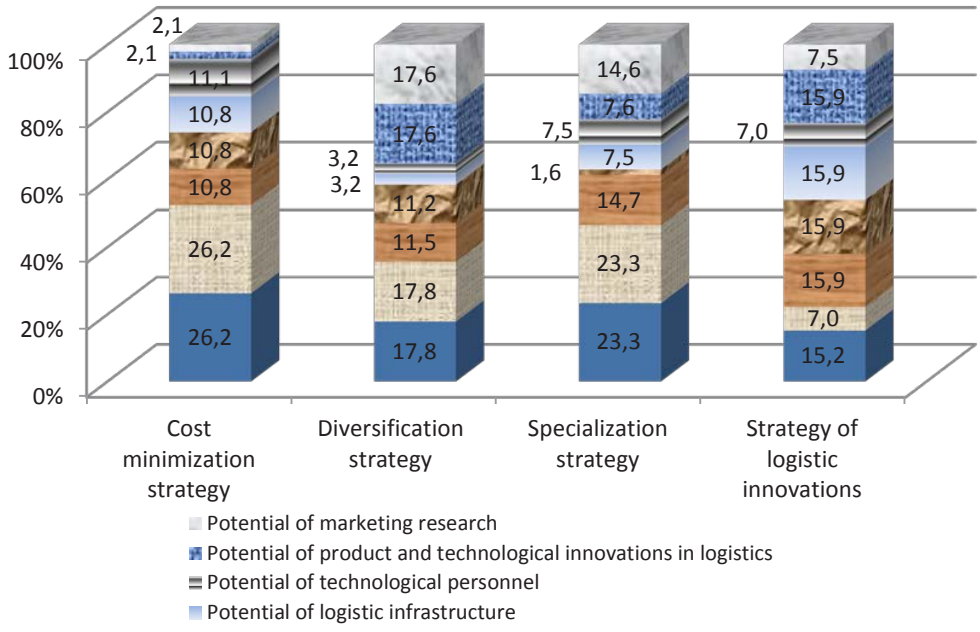

Figure 2. Average evaluation results of the significance of logistic potential elements

Source: the authors' calculations

6. Identification of logistics strategy type

Research stage involves the comparison of relative values of cost share to form the logistic potential elements with the evaluation results of their significance. The stage involves the comparison of relative values of cost share to form the logistic potential elements with estimation results of their significance. The stage identifies such a ratio of the logistic potential elements in terms of their significance corresponding mostly to actual structure of total costs for its formation. Hence, an analytical expert can determine the type of logistics strategy, which the enterprise is capable of implementing within the current period. Determination of the compliance of current and perspective estimation results helps answer the question of whether the formed conditions correspond to the provision of the efficient implementation of the selected tendency of strategic changes.

The last stage of FCA implementation gives recommendations concerning the cost structure correction if the determined cost ratio of the logistic potential elements cannot provide formation of the required conditions to implement the selected logistic strategy over the next years. If so, it is required to start from the determination of the scheduled value of total costs to form logistic potential for the following period with their further distribution to changes in the elements according to their priority in terms of the developed profiles.

7. Conclusions

Quantitative evaluation of the conditions for the effective implementation of logistics strategy in the context of an enterprise has been considered as a certain applied stage of the process of strategic management of logistic potential making it possible to make following conclusions:

1. The current development stage limits enterprise possibilities to attract resources for a logistics strategy implementation; thus, they have to use at the most their own logistic potential involving eight components: a potential of managerial logistic staff; organizational potential; a potential of managerial innovations; transfer potential; a potential of logistic infrastructure; a potential of technologic personnel; a potential of product and technologic innovations in logistics; and a potential of market research. It is expedient to evaluate qualitatively certain components of the logistic potential with the use of functional-cost analysis.

2. The authors have substantiated the technique for qualitative evaluation of the logistic potential components to estimate relevance of internal environment of an enterprise to the selected strategy. The functional-cost analysis involves several stages, more specifically: preparatory stage, information stage, analytical stage, study stage, and recommendation one.

3. A type of logistic strategy, implemented by an enterprise (able to implement), is determined according to the comparison results of a logistic potential structure (identified on the estimated significance of its certain elements) and structure of total expenditures connected with its formation. That has made it possible to specify managerial decisions as for the cost structure planning to form its elements.

Further studies should be intended to evaluate optimizing logistics potential which high level means an efficient organization of material and financial flows, and hence capability of an enterprise to use productively the formed conditions to implement the selected logistic strategy.

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DIRECTIONS OF DEVELOPMENT OF THE FINANCIAL SERVICES MARKET OF UKRAINE

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Abstract. Development of the financial services market is an important component of the national economy's development. Within this market, credit and investment resources are formed, which are the basis of economic development of the real economy sector of the state. It is this that determines the importance of creating conditions for improving the efficiency of financial institutions, which become intermediaries between persons who have free funds and those economic entities that they need. The outlined justifies the relevance of the topic. Consequently, taking into consideration the objective of the study, the following *aim* of its implementation was set: to identify and substantiate the main determinants of the development of the financial services market in Ukraine. To achieve this goal, the following tasks were set and solved: to identify the main, most important, measures of transformation of the environment of financial institutions functioning; to substantiate the essence of such measures and the peculiarities of their implementation; to specify basic actions within the limits of separate determinants of the financial services market development, to describe their applied character. *Method.* In the course of the research, a range of different scientific methods was used. Among the general techniques, it is necessary to allocate methods of observation, comparison, abstraction. It is advisable to include the method of economic analysis, synthesis, system approach, content methods, and event analysis in specific research methods. *Results.* Universal priorities of financial services markets development in different countries are determined and systematized, the analysis of which made it possible to investigate perspective determinants of the development of such a market in Ukraine, peculiarities of their introduction into the functioning of the financial services sphere are described. Among these measures are the following: increase in the stability of financial institutions, increase the transparency of the functioning of producers and consumers of financial services, raising the level of financial literacy in society, reforming the state regulation system of the activities of financial intermediaries, the formation of the trust infrastructure system. Taking into consideration the received scientific outcomes, the justification of peculiarities on the implementation of these priorities in the system of the financial services market functioning in Ukraine is conducted. *Practical implications.* The research results obtained in the course of the research implementation regarding the possibilities of changing the financial services market for improving the efficiency of financial institutions work have an applied character, and their implementation will make it possible to form a new environment for the functioning of such economic actors. This will facilitate the transformation of financial resources to increase the formation of investment and loan funds. The results obtained can be used by public authorities that regulate the activities of financial institutions in the process of developing new strategic documents for the development of the financial services market in Ukraine. *Value/originality.* The conducted research is relevant, considering the significant impact of the financial services market on the development of the national economy, the proposed measures for the development of such a market are applied and can be used by public authorities in the regulation of the activities of financial institutions. This research has been conducted within the framework of the scientific work implementation Department of Finance, Banking and Insurance, Chernihiv National University of Technology, Ukraine on the following topics: "Financial stability of economic systems in crisis conditions of management" (No. 0115U001149) and "Development of financial intermediaries in the turbulent conditions of the national economy's functioning" (No. 0115U001149).

Key words: financial service, financial institution, financial credibility, financial intermediary.

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1. Introductions

Development of the national economy depends on a significant number of factors of exogenous and endogenous nature. However, development of the country's economy occurs only in presence of available financial resources, which use contributes to the expansion of the activity of economic entities, provides an opportunity for them to introduce innovative technologies in their own work and increase the quality of products, creates conditions to increase the demand of population for goods and services.

Formation of financial resources in the state occurs solely through the system of financial intermediaries' functioning. There are also cases of self-financing and using internal investments. However, active development of the national economy is connected with the activation of financial institutions' activity. Such intermediaries are able to transform temporary free funds of legal entities and individuals and turn them into investment resources. That's exactly why the creation of conditions for normal operation of the mentioned institutions is a guarantee for fulfilling by them their own functions and increase in volume financial resources within the national economy. Taken together, financial intermediaries and their clients form a single area of interaction – the financial services market, where the demand and proposition for financial resources among its main participants are levelled.

The financial and economic crisis of 2007-2008 had a negative impact on the financial services markets development in many countries of the world and, in general, their economies. After that, the vast majority of governments redefined the role of financial services in the development of the national economy and increased requirements for the functioning of financial intermediaries. The crisis in this area also witnessed the existence of a significant number of problems of a different nature: inefficient mechanism of state regulation of the activities of financial institutions, low level of financial literacy of the population, violation of the rights of consumers of financial services, etc. The problems outlined are universal and inherent to all countries regardless of the levels of their financial services markets development. That is why the definition of a set of key areas for improving the functioning of such markets is an urgent task for the conditions formation for the further development of national economies. There is no exception to Ukraine.

The financial services market development as a macroeconomic system is being studied by scientists for a long time. The most thorough works in this area should include the researches of Ye. A. Bobrov, Ye. P. Bondarneko, B. M. Vyshyvana, T. Yu. Zarypova, V. Zymovets, V. Ilchuk, Yu. M. Kovalenko, V. Korneyev, S. S. Krasovsky, V. Mishchenko, S. Naumenkova, I. Podsygun, I. I. Rekunenko, I. Soloshkin, V. A. Titov, M. M. Tretiakov, V. P. Unets-Khodakivska, S. I. Yurii, G. V. Yurchuk, V. V. Yashchuk, I. Asmundson, D. Acemoglu, G. Akerlof, R. Bergner, R. Herring, A. Santomero, C. Stijn, O. Wyman, and others.

However, despite numerous works in the sphere of financial services markets development, taking into consideration variability of external conditions of this market functioning and inherent dynamism, an issue on the development of such a market is urgent, especially in current turbulent operating conditions of financial intermediaries and financial entities' functioning.

2. Financial stability, transparency of activities, and financial literacy

Thus, let's consider the main directions for the system development of the relations between producers and consumers of the financial services in Ukraine, which implementation will promote an increase in the work efficiency of the market of such services (Figure 1).

1. Stability growth of financial institutions.

Certainly, ensuring financial stability of all financial institutions is an important part of the formation of an effective system of financial intermediaries functioning in the country. After the financial and economic crisis of 2008–2009, the consequences of which are felt today, an overwhelming number of state regulators in the financial services markets revised the conditions for the capital formation of such institutions to increase their reliability. Appropriate decisions were also made in Ukraine.

Initially, minimum size of the authorized capital of banks was raised to 125.0 million UAH, and later to 500.0 million UAH. Ukraine is gradually moving towards the introduction of European approaches to ensuring the stability of the financial services sector. Results were partially achieved only in the banking system through gradual withdrawal of unstable commercial banks from the financial services market of the state (and those of them which didn't correspond to new criteria determined by the NBU) (On Banks and Banking, 2000).

However, for instance, within the insurance market, there is a different situation. First, this market has not undergone such cleansing as the market of banking services and, therefore, a significant number of insurers operate on it, which in reality do not carry out active activity, are used partially for money laundering and in other, not related with insurance sphere, activity. As for the authorized capital of insurance companies, this situation has developed. In the countries of the European Union, uniform rules governing relations in the field of insurance are developed, which stipulate the establishment of rigorous legislative requirements (EU Directive). Currently, in 28 EU member states, the insurance market has an updated system of insurers' solvency requirements Solvency II (Yukhymenko, 2015).

Quantitative requirements are realized through the specific requirements to the capital of insurance companies: minimum capital requirement (MRS), which provides for an increase in authorized capital of up to 2.2 million Euros for the insurance companies engaged in risky types of insurance and for insurers engaged in life insurance this limit reaches a mark of 3.2 million Euros.

At present, for Ukrainian insurance companies, the size of the minimum statutory capital, in accordance with Article 30 of the Law of Ukraine "On Insurance" (On Insurance, 1996), for an insurer who deals with types of insurance other than life insurance, is set at an amount equivalent to 1 million Euros, and for life insurance companies, 10 million Euro at a foreign exchange rate. However, a difference between requirements for providing the minimum size of the statutory fund for Ukrainian and European companies is that the domestic legislation provides: amount in Euro is determined at the time of the authorized capital formation, and may not be reviewed later, despite the change in Hryvnia exchange rate to Euro. This has become especially relevant in the last few years. As for the European directive, then the capital adequacy of the established minimum level should be ensured on a daily basis, otherwise, supervisors for the activities of insurance companies in European countries may resort to the procedure for license withdrawal, as it jeopardizes the failure to fulfil its obligations to provide insurance services under concluded contracts (Baliev, 2016). The outlined gives grounds for asserting that in order to improve the reputation of insurers, there is a need for a profound reform of the entire insurance market. In particular, it is necessary:

1) increase the level of information disclosure about end-users not only of banking institutions but also of other non-bank financial intermediaries;
2) increase requirements for formation of statutory capital of institutions, which attract clients' funds;
3) clean up individual segments of the non-bank financial services market, especially in terms of withdrawal from such a market of really inactive credit unions, non-state pension funds, insurance companies (both life- and non-life insurance);
4) increase requirements for the functioning of rating agencies, which assign credit ratings to financial institutions and thus affect the perception of the reliability of the financial services market participants.

Hence, an increase in the level of stability of financial institutions will contribute to the development of the entire financial services market. Availability of financially able to counter the external threats of financial service providers is a key to increasing the efficiency of such a market and the rapid normalization of the work of financial intermediaries during the crisis periods of the national economy's functioning.

2. Increasing the transparency of the functioning of producers and consumers of financial services.

An important condition for the development of the financial services market in Ukraine is the increased transparency of the activities of all its participants. In scientific papers, it was decided to note the lack of

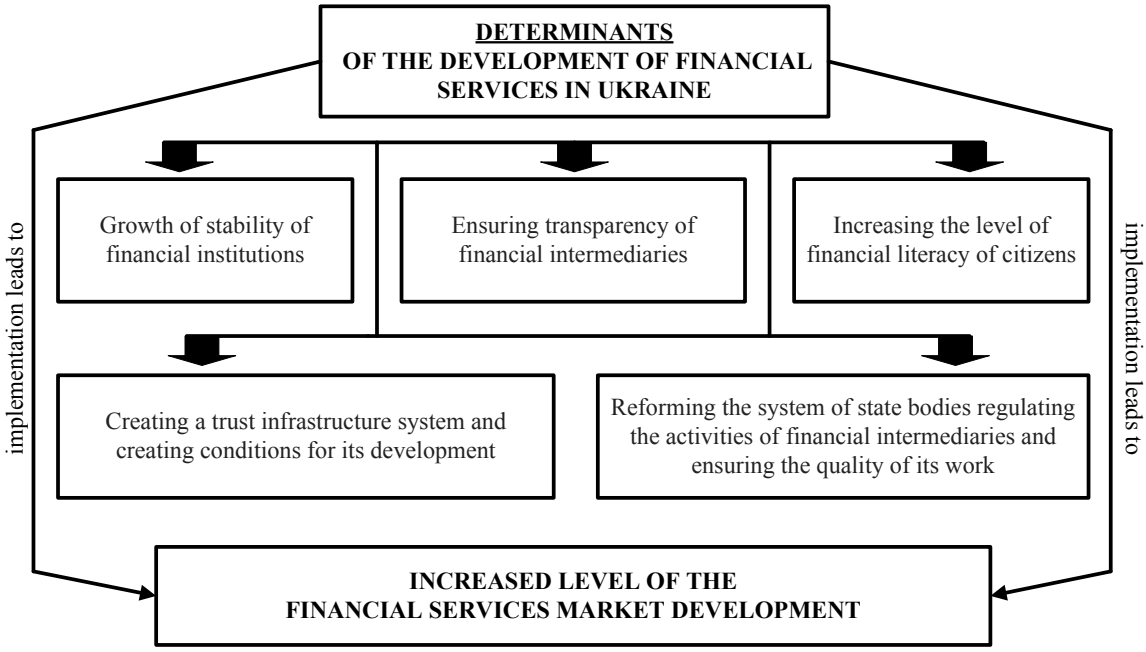

Figure 1. The main imperatives of raising confidence in the financial services market

Source: compiled by the authors (Berglof, Bolton, 2002; Cevik, Kirci, Dibooglu, Sel, Kutan, Ali, 2016; Sutton, Jenkins, 2007; Barjaktarović, Paunović, Ječmenica, 2013; Baily, Elliott, 2016; Adnan, 2006; Thalassinos, 2008)

transparency in the activities of institutions providing financial services to clients. However, taking into account Ukrainian realities, we believe that it is also necessary to introduce mechanisms for improving the quality of information about financial services consumers.

Vishwanath T., Kauffman D. note that awareness among public authorities of the importance of transparency in the mechanisms of maintenance of welfare and development of economic markets is growing. In the economic sphere, greater availability of information, its reliability and timeliness improve resource allocation, increases efficiency and increases growth prospects. The scientific literature on financial crises recognizes that insufficient transparency is one of the factors that led to the emergence of long-term financial and economic crises (Vishwanath, Kauffman, 2001). The outlined only confirms the importance of research and increasing the level of transparency in the functioning of all economic actors.

It is worth pointing out that transparency issues concern not only the work of financial institutions and information about their clients. This also applies to the functioning of public authorities that regulate financial services markets.

It should be taken into consideration the thought of P. Shtompka: "In order to increase the transparency of a public organization, the actions of the authorities should be the most open nature. It is necessary to develop and implement an effective information policy that would serve this purpose. To do this, you need to create independent media, independent centres that collect statistics, statistical agencies, reform monitoring centres on researching public opinion" (Shtompka, 2012).

In view of the above, in our opinion, in order to increase the transparency of functioning of the financial services market, it is necessary:

1. To improve the quality of the credit history bureau's work by creating a single national system of credit records received by clients with the obligation of all credit companies and credit unions to provide relevant information.

2. To make the state databases of the population as accessible as possible for the work of financial institutions (database of convicted persons, data on court decisions in the field of financial services provision, data of the state executive service), as it happens in developed countries, where such information is not only provided in the open access, but also the access to it for institutions is synchronized, which increases the usability of its use and search.

3. To increase the transparency requirements of financial institutions, to obligatory provide to clients with information about the real value of financial services (as required by the Law of Ukraine "On Consumer Lending", 2016), but this applies only to credit services).

4. To implement the mechanism of regulating information on the status of financial institutions by state authorities, to determine the data and requirements for their presentation obligatory for publication on official sites.

5. To create by analogy with the mechanisms of credit reference bureau for preventing fraud by clients of other financial intermediaries, except for credit. Especially this measure is relevant for the activities of risk insurance companies that deal with cases of unfair customer behaviour. That is why it is worth creating a single database of unscrupulous clients, and insurance companies are obliged to participate in its creation and work.

6. To develop a mechanism for rating activities of non-bank financial institutions in a set of indicators to increase the awareness of clients concerning their work quality.

7. To strengthen the role of self-regulatory organizations in providing information requirements to financial institutions, especially as regards the development of rules for participants in such associations.

8. To take into account the experience of publishing the owners of banking institutions, which was implemented by the NBU, and to introduce it within other segments of the financial services market, to require financial institutions to provide data on their main actual owners.

9. To create a single platform on the basis of the main self-regulatory organization (or public institution) in the field of the functioning of the financial services market to fill its information with financial intermediaries. This would enable customers to compare the terms of financial products, analyse comparative data on the performance of financial institutions, and use the information of state regulators on the functioning of individual segments of the financial services market.

10. Increase the use of the potential of modern information technologies to increase the level of information openness of financial institutions, etc.

Increasing the transparency of the work of financial institutions is an integral part of the development of the financial services market as it increases the transparency of its operation, which contributes to increasing the trust between consumers and producers of such services.

3. Increasing the level f financial literacy in society

Financial literacy of society is an important condition for the development of the national economy and its financial system in particular. Actually, all developed countries introduce measures to increase awareness of the specifics of the financial services use.

It is worth noting that Ukraine is to some extent an outsider in campaigns to raise the level of financial education and financial literacy for the population. The state authorities have not initiated or developed any programs in this regard, despite the fact that the introduction of educational programs for consumers is one of the first points of the implementation of the Concept on the protection of the rights of consumers of financial services in Ukraine (The concept of rights protection of consumers of financial services in Ukraine, 2009).

In Ukraine, after the financial and economic crises of the last decade, the issue of improving the literacy of economic actors is quite acute. After 2008, a large number of individuals lost their property due to the inability to service credit obligations. This was caused by a lack of understanding of the risks of foreign currency loans. As a result, a significant number of clients of financial institutions felt guilty.

In this situation, in fact, all those involved in the functioning of the financial services markets were guilty. Customers have poorly read the terms of the loan agreements, financial institutions were not interested in explaining in detail the features of their financial products developed, state authorities did not pay enough attention to a significant increase in the volume of foreign currency loans within the entire banking system, did not affect the process.

The misunderstanding between consumers and lenders was due to the active development of collecting companies, credit reference bureaus, and significant litigation cases. Deepening of distrust between the above-mentioned subjects was accompanied by unusual cases of exceeding the assessed penalties in comparison with the initial amount of the loan.

The crisis of 2013-2014 has shown that lessons learned from 2008 were made by both clients and financial institutions. However, the bankruptcy of banks, lowering the real value of state-guaranteed funds for deposit services again halted the process of restoring confidence in the activities of financial institutions, primarily commercial banks. Because of economic transformations, banks have reduced the volume of loans for business entities. This niche was quickly taken by non-bank financial institutions (consumer lending). However, the conditions for obtaining loans in such institutions are complex and unprofitable for citizens. Interest rates on loans exceed 300-400% per annum. Customers are not always aware of the real amounts of overpayments for loans received and possible sanctions in case of late payment.

These examples demonstrate the importance of raising the financial literacy of citizens in society, understanding their specifics of the functioning of the financial services sector, the ability to determine their own real possibilities of servicing loans.

Problems of the low level of financial literacy are also relevant for developed countries where financial services markets are developing more stable. However, according to studies conducted, even in the most economically developed countries, the majority of the population has a low level of financial knowledge and often overestimates the assessment of their own knowledge and skills in consumer lending products. Simply put, most consumers around the world are not well trained to understand and manage their debt. This is a very weak foundation for building a sophisticated financial architecture (Financial literacy and awareness in Ukraine: facts and conclusions. Project on financial sector development, 2010).

Increasing the level of financial literacy makes it possible to reduce the number of cases of use of financial services by consumers who do not realize the real conditions for their provision. That is why in this area it is necessary:

1) elaborate the national program for increasing the level of financial literacy of population for the long term;
2) create state funds (for instance, on account of financial resources of the NBU) financing of individual projects as for increasing the level of financial literacy;
3) use the HEI potential to introduce the courses for increasing financial literacy in educational plans on specialists training (elaboration of separate themes on this subject); these issues are especially urgent for students of non-economic specialties;
4) involve international organizations for projects financing to increase the financial literacy of population, spread information through HEIs about the existence of such opportunities;
5) create within the bounds of state authorities, which regulate the activity of separate financial intermediaries, individual departments (for example, in the USA in the structure of the US Consumer Protection Bureau, the Department of consumers' education and interaction with them operates), which would be involved in relevant problem (Latkovska, 2013).

It is also interesting to note the experience of Italy in taking into account the level of financial literacy in the process of providing financial services. The client, coming to the bank, is required to complete a questionnaire which determines its level of financial literacy. And the bank does not have the right to provide him with a service that is more complex in its content than the level of literacy of the client. Otherwise, in the case of a controversial situation, the court will be uniquely on the client side. Today, it would be possible to adapt the existing experience to the Ukrainian conditions (Skapenker, 2013).

Increasing the level of financial awareness of the population contributes to increasing the resilience of financial institutions, normalizing relations between the participants in the financial services market, gradually increasing the level of trust between them. The outline only confirms the importance of implementing measures to change the current situation in this area.

3. Reform systems of state regulation of the financial intermediaries' activities

Development of the financial services market is impossible without the existence of reliable state regulation of its functioning. In Ukraine, an inefficient system of such regulation was formed in which the NBU implements the most important functions in the

activities of banking institutions, which are the largest financial intermediaries in Ukraine, and National Financial Services Commission and National Securities and Stock Market Commission supervise the rest of financial institutions.

However, in addition to the NBU, financial and institutional capacity of other state bodies is limited, which also affects the quality of state regulation. The National Financial Services Commission does not have a real opportunity to clear the market of insurance services from nominally existing insurers, as the funds of clients in such institutions will be lost. It is also not possible to compensate these clients' resources, as implemented by the NBU in cooperation with the Individual Deposit Guarantee Fund. Guarantee mechanisms in Ukraine in the insurance services market have not been created.

The outlined shows that in this area it is necessary to:
1) transform the system of state regulation in the sphere of financial intermediaries functioning by means of either the creation on the basis of the NBU of a single mega regulator, as it has already been established by the countries of the former Soviet Union (Russia, Kazakhstan), or to consider the concept of constructing another, more adapted to current realities of the system of supervision over the activities of such institutions (model twin peaks becomes the most popular among developed countries);
2) increase the role of the state in protecting the rights of financial services consumers, effectively create and organize efficient activities of the financial ombudsman;
3) increase the level of responsibility of executive authorities for making decisions in the sphere of reforming of the financial services markets;
4) promote the introduction of new information technologies for processing the data on the financial activities of insurers;
5) change the system for collecting information on financial intermediaries, to expand it with new indicators, criteria, and mechanisms for the disclosure of such data.

Reforming the system of state regulation of the financial services markets in Ukraine is already an urgent problem and needs to be addressed, given the modern transformations of such markets and the new challenges facing the regulators that they create.

4. Creation of a trust infrastructure system

Trust is a major factor in the development of the financial services market. In order for such a market to develop normally, formation of trust becomes the main task, without which it is impossible to increase the efficiency of interaction between producers and consumers of financial services.

Infrastructure is a complex, dynamic system, which elements have a common goal of the activity, which consists in the formation and implementation of measures to create the preconditions for the functioning of a particular phenomenon, object, process, i.e., promoting the development of another system. Thus, the infrastructure of financial trust is a system of establishments and institutions with the same goal of the activity, which is to develop and implement measures to create the preconditions for building financial trust in society.

In Figure 2, the system of financial trust infrastructure is illustrated.

Thus, within its boundaries, it is possible to identify common elements that increase the efficiency of the work of all financial institutions and segmental organizations that play an important role in the development of individual components of the financial services market.

The main element of the trust infrastructure in Ukraine can be, for example, the Guarantee Fund for Individuals, which provides guarantees of repayment in case of insolvency of the banking institution. However, in Ukraine, in addition to this fund, there are no more guarantee mechanisms, which hold back the process of financial trust growth. That is why, in our opinion, the following should be done:
1) create insurance guarantee funds for clients' insurers of life type (On adoption of the draft Law of Ukraine on the Guarantee Fund for insurance payments under life insurance contracts, 2013);
2) create mechanisms for guaranteeing deposits attracted by credit unions (Non-bank financial institutions: Assessment of their impact on the stability of the financial system, 2012);
3) adapt foreign experience and introduce guarantee mechanisms for the repayment of non-state pension funds of clients;
4) consider the introduction of the above mechanisms within the framework of certain types of services of risk insurance companies (for example, as civil liability insurance for land vehicle owners, which is realized by the Motor (Transport) Insurance Bureau of Ukraine (On Mandatory Civil and Legal Liability Insurance for Motor Vehicles Owners, 2004));
5) increase requirements for the insurance intermediaries' activities, the effectiveness of their work, create an online rating system for providing their services and develop a list of unscrupulous insurance intermediaries who take fraudulent actions;
6) in general, develop a concept for building a trust infrastructure system in the state for the coordinated work of all its potential participants.

Thus, the introduction of these measures for the financial services market development will allow Ukraine to create conditions for increasing the efficiency of financial intermediaries, increase the financial literacy of population that in the complex only will promote normalization of relations between the main participants of such a market.

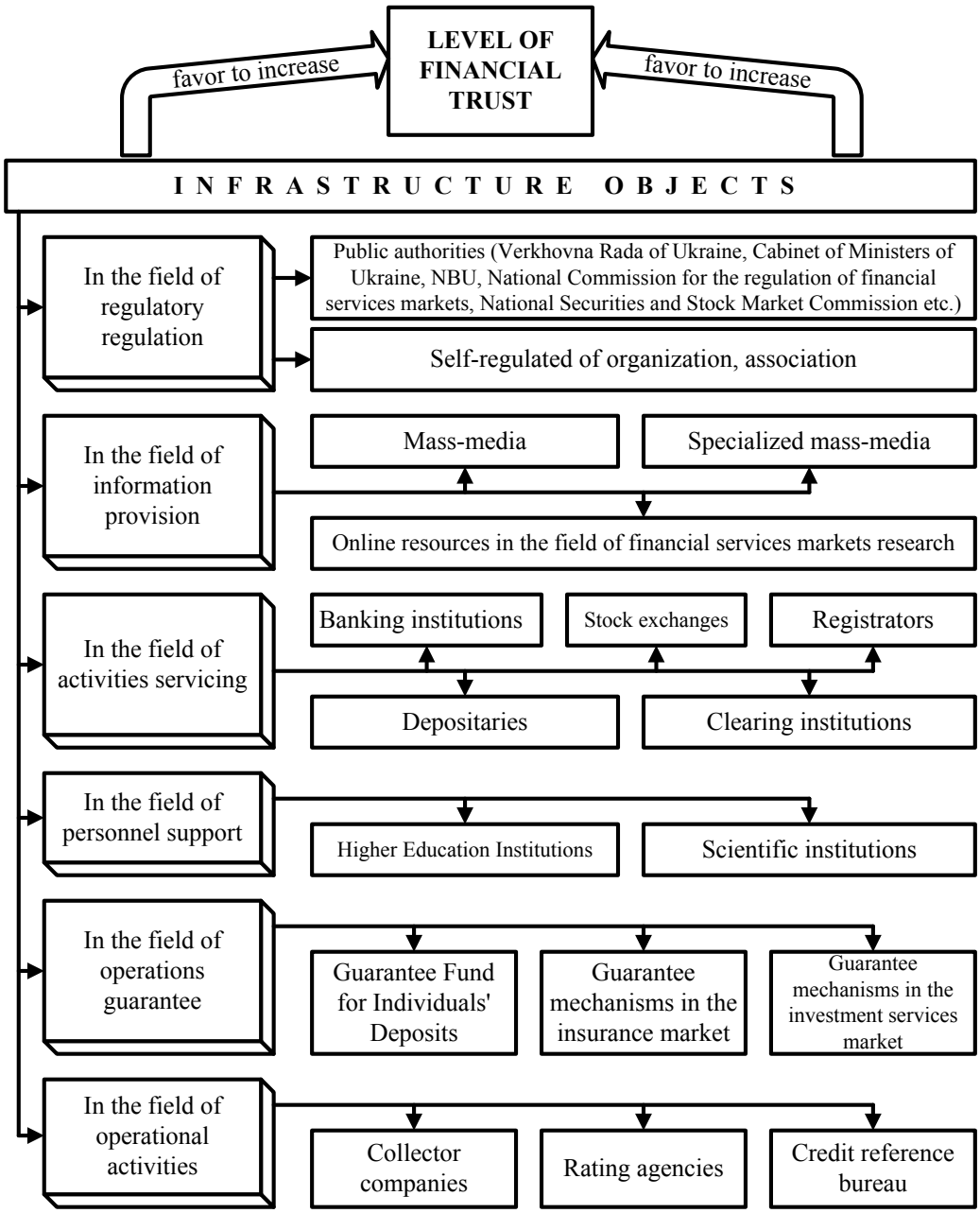

Figure 2. Classification of the main components of the system of financial trust infrastructure

Source: compiled by the author taking into consideration (Hrishova, Dubyna, Shyshkina, 2017; Prokopenko, Dubyna, 2015; Chuprykova, 2014; Shkarlet, Dubyna, Tarasenko, 2016; Sho Robert, 2000; Thalassinos, 2008; Thimann)

5. Findings

Within the article, directions on the development of national financial services markets are substantiated. A fragmentary analysis of the current state of the financial intermediaries' functioning in different countries has allowed identifying areas for their activities improvement and, respectively, the financial services market development. The following measures were identified as raising the level of financial literacy in society; increase in the transparency of the functioning of producers and consumers of financial services; increase in the stability of financial institutions; reforming the state regulation system of the financial intermediaries' activities; formation of the trust infrastructure system.

It is proved within the article that the outlined priority measures to improve the efficiency of financial services markets are relevant for all countries with a market economy since they solve complex problems of ensuring, first, effective interaction between financial institutions and their clients. Most of the measures were determined based on an analysis of the effects of the financial and economic crisis of 2007-2008 on the individual markets

functioning for financial services and the peculiarities of fighting them by governments of different countries.

The article is devoted to the issue of reforming the financial services market of Ukraine, which for the last ten years has been in complicated conditions of its own functioning, which is conditioned by the influence not only of the financial and economic crisis of 2007-2008, which was by its nature worldwide, but also by the local economic-political crisis of 2013-2014, which affected the functioning of all types of financial institutions and led to a significant deterioration in the economic situation of the country.

6. Conclusions

Further perspective directions of research in the sphere of financial services markets should include the need for a deeper study of the peculiarities of the formation within the national economy of guarantee systems for ensuring the return of funds to customers in the event of the insolvency of financial service providers. Issues of their complex study and combination in the unified concept of the trust infrastructure development in the country deserve special attention.

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METHODS OF EVALUATION AND CONCEPTUAL-STRATEGIC DIRECTIONS OF ECONOMIC SECURITY OF AGRICULTURAL ENTERPRISES

Yurii Yaremko[1], Liliia Shykova[2], Larysa Syvolap[3]

Abstract. *The purpose* of the paper is to identify an effective method for assessing economic security and to formulate conceptual and strategic directions for raising the level of economic security of agricultural enterprises operating in conditions of instability and uncertainty. *Methodology.* In the process of research, general scientific and specific research methods were used. In particular, the method of statistical analysis was used in determining the dynamics of the number of agricultural enterprises. The methods of synthesis and analysis were used to identify the negative trends that affect the activities of agricultural enterprises. Using from abstract to specific methods, an algorithm for assessing the level of economic security of agricultural enterprises and the formation stages of the enterprise economic security concept were determined. *Results.* The article defines the main modern functioning tendencies of agricultural enterprises. It is suggested to use such means as financial, human resources, legal, informational, organizational to ensure the proper level of economic security of agricultural enterprises. The article states that the methodology for assessing the level of economic security consists of two approaches: qualitative and quantitative determination of the level of economic security. The authors systematize the indicators for assessing the level of economic security of the agricultural enterprise. The basic features of the economic security concept of agricultural enterprises are determined. The general strategies of the enterprise are described, which can be used both for agricultural enterprises and for other companies of different branches of the economy, in accordance with the level of economic security. *Practical meaning.* The article provides materials that give an understanding of the algorithm for assessing the level of economic security of an agricultural enterprise. The authors present the systematization of components and indicators for assessing the level of economic security, which in practice allows the most effective and reliable determination of the level of economic security. The detailed description of the company's general strategies allows us to identify and implement precisely the strategy that will maximize the level of economic security of the enterprise. Strategic directions improved by authors for the formation of economic security of agricultural enterprises provide the opportunity to identify the necessary tools, with the help of which it is possible to achieve the maximum level of economic security of the enterprise. *Value/originality.* The paper analyses the methodology of evaluation and conceptual-strategic directions of economic security of agricultural enterprises, which proves the urgency and necessity of the considered issues. The presented results of the research and the propositions on the strategic improvement of the economic security level of agricultural enterprises can improve the efficiency of the enterprises of the agrarian sector. Taking into account the significant contribution of agriculture to the country's economy, the research allows improving not only the performance of individual enterprises but also the effectiveness of the national economy as a whole.

Key words: economic security, agricultural enterprise, methodology of evaluation, concept, strategy.

JEL Classification: Q10, Q12

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1. Introduction

The risk character of entrepreneurial activity and increase of the level of competitive struggle determine the necessity of forming economic security of economic entities. This problem is especially relevant for agricultural enterprises, given the increased riskiness of their activities, which is due to the natural climatic factor and the use of land as the main means of production. The presence of a number of unresolved problems, in particular, lack of own funds to ensure expanded reproduction of production, inefficient use of resource potential, decrease the level of managerial personnel qualification, prevent most agricultural enterprises from maintaining a high level of economic security.

In Ukraine, agriculture is one of the most important sectors of the economy. One-third of the total gross value added to the state is provided by agriculture itself. However, today enterprises in this industry operate in conditions of instability and uncertainty. Such a situation negatively affects both the level of economic security of agricultural enterprises and the level of economic security of the country.

In the conditions of the formation of the market economy of post-socialist countries, to ensure the economic security of enterprises of the agro-industrial complex in each region of the country is of paramount importance. Insufficient scientific and methodological development of these issues, poorly legitimate provision of their decisions and problem solving, the absence of cardinal practical measures of active state regulation of economic security management processes create extreme conditions in Ukraine when statehood will be lost, the economy will collapse completely.

The use of a system for ensuring the economic security of agricultural enterprises and regions of the country will allow the rational management of enterprises, firms, farms in each region to take active management decisions for the withdrawal of the economy from the crisis, in which most of the regions of the country appeared. The business practices in the agrarian sector require profound scientific research in solving the issues of economic, food, financial, environmental, and other types of security of Ukraine, its regions, enterprises, firms and farms of the agrarian sector of the economy.

In order to increase the level of economic security of agricultural enterprises, it is necessary to conduct continuous monitoring of it, using the most effective method of assessment, which should take into account all factors that affect the level of economic security. The correct method for assessing the level of economic security provides the opportunity to form the most effective strategy for the development of economic security of the enterprise.

The purpose of the paper is to identify an effective method for assessing economic security and to formulate conceptual and strategic directions for raising the level of economic security of agricultural enterprises operating in conditions of instability and uncertainty.

2. Trends in the agricultural sector

The agrarian sector is of great importance for the economy of many countries, including Ukraine. The level of economic development depends on the functioning efficiency of agrarian enterprises. Agrarian enterprises (agricultural enterprises) represent an open system, influenced both by internal and external factors. Negative trends in the economic and political spheres of the country also affected the activities of agricultural enterprises. This, first of all, has led to a negative trend in the change of the agricultural enterprises' number (Table 1 and Figure 1).

Analysis of the dynamics of the number of agricultural enterprises for the period of 2013-2017 showed that the number of agricultural enterprises in 2017 decreased by 3,488 units compared with 2013. Despite the increase in the number of agricultural enterprises in 2016, compared with 2014, and 2015, the number of these enterprises has not reached the level of 2013.

This tendency has developed under the influence of national conditions, namely:

- increase in the cost price of cultivating crops (devaluation of the hryvnia, unstable exchange rate provoke a rise in prices of fuel, fertilizers, raw materials, agricultural machinery, etc.);
- personnel problems (high qualified personnel insufficiency, despite that every fifth of Ukrainians works in the field of agriculture);
- difficulties with financing;
- degradation of agricultural lands (violation of scientifically substantiated systems of agriculture, monoculture of agriculture) (Problemy siljsjkogho ghospodarstva Ukrajiny, 2016).

Thus, the negative tendencies that have developed in the field of agriculture make it possible to state that the level of economic security of agricultural enterprises has been reduced. However, in order to form an effective

Table 1
The dynamics of the number of agricultural enterprises in Ukraine for 2013-2017

Indicator	Years					Deviation 2017/2013
	2013	2014	2015	2016	2017	
Agricultural enterprises, units	49046	46199	45379	47697	45558	-3488
of them farms	34168	33084	32303	33682	34137	-31

Source: compiled by the authors using the source (Ofitsiinyi veb-sait Derzhavnoi sluzhby statystyky Ukrainy, 2018)

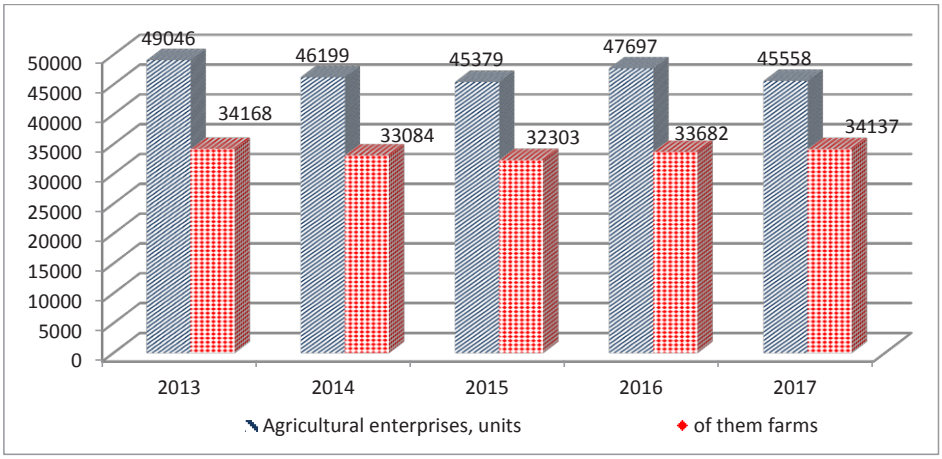

Figure 1. Dynamics of agricultural enterprises in Ukraine for 2013-2017

Source: ofitsiinyi veb-sait Derzhavnoi sluzhby statystyky Ukrainy, 2018

strategy to increase the level of economic security of agricultural enterprises, it is necessary to carry out a reliable diagnosis of the level of economic security of agricultural enterprises, using such an assessment methodology that will take into account all components of the economic security of agricultural enterprises.

3. Methodology for assessing the economic security of agricultural enterprises

The main objective of assessing the level of economic security is the timely identification of external and internal threats to the effective operation of enterprises and the definition of strategic directions for improving the level of economic security in order to ensure sustainable development of the enterprise in the future.

The objects of economic security of agricultural enterprises consist of two types:

1. The activity of the enterprise (production, sales, etc.).
2. Resources of the enterprise (financial, personnel, land, material and technical).

Economic security entities include individuals or entire units that, in their function, should ensure an adequate level of economic security of the enterprise.

In order to ensure an adequate level of economic security of agricultural enterprises, it is recommended to use the following means (Stepanov, 2017):

1. Financial (without which it is impossible to form economic security, functioning and development of the enterprise).
2. Personnel (personnel dealing with economic security, its experience and professionalism, the attraction of highly skilled workers).
3. Legal (development of legal acts on the creation, operation of the enterprise and maintenance of its economic security).
4. Information (computers, informational products, security networks).
5. Organizational (creation of specialized units, organizations that help to provide economic security, provide appropriate consultations).

The abovementioned means of ensuring the proper level of economic security of agricultural enterprises are one of the components of economic security, therefore, the effectiveness of their use significantly influences the proper use and monitoring of the level of economic security, it is necessary to implement an algorithm for assessing the level of economic security. Many scientists are concerned with the formation of procedures and methods for assessing the level of economic security, in particular the agricultural enterprise: M. Bendikov, A. Baranovsky, L. Bekhter, V. Dukhov, D. Zadorozhny, S. Ilyashenko, D. Kovalev, T. Kornienko, V. Prokhorov, N. Reverchuk, D. Stepanov, and others.

In a scientific paper, Kornienko T. O. (Kornienko, 2013) provides an algorithm for assessing the level of economic security of agricultural enterprises, which consists of 6 stages (Figure 2).

The above-presented algorithm for assessing the level of economic security shows the necessity of a certain methodical approach, which will allow making the most reliable estimation of the level of economic security, taking into account both external and internal factors of influence on the economic security of the enterprise.

Despite a significant number of scientific papers on the assessment and diagnosis of economic security of the enterprise, today there is no single approach to assessing the level of economic security. These approaches can be divided into two groups:

- the first group – the following methods are used: STEP-analysis, SWOT-analysis, bankruptcy diagnostics;
- the second group – the complex criterion is determined according to the level of the basic indicators of the activity of enterprises, or methods of integrated assessment of the determination of specific components of economic security are used.

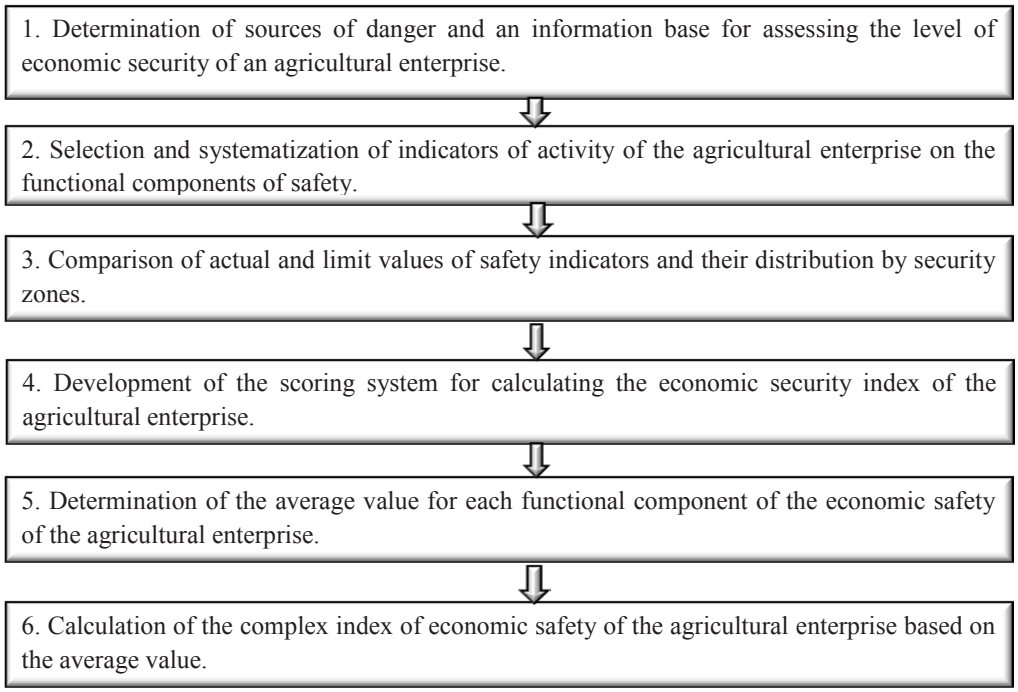

Figure 2. Algorithm for assessing the level of economic security of agricultural enterprises

Source: Kornienko, 2013

Thus, the first group includes methods of assessment that characterize the level of economic security of the enterprise, mainly through qualitative indicators. The second group includes quantitative assessment methods, which are based exclusively on the calculation of quantitative indicators. We propose, when conducting an assessment of the level of economic security of the agricultural enterprise to use an integrated approach, that is, it is necessary to apply both methods of quantitative assessment, and methods of qualitative assessment. This is due to the specifics of the activity of agricultural enterprises, which uses such main resource as land, whose efficiency is influenced not only by quantitative factors but also by qualitative (natural and climatic conditions, geographical location, etc.).

Considering that the enterprise's economic security is a multi-component category, it is necessary to evaluate first of its individual components and then to determine the overall level of economic security. However, in modern economic literature, there is no generalized definition of the components of the economic security of an enterprise; therefore, the assessment of the level of economic security is not always objective. Summarizing different approaches to determine the components of economic security of an enterprise, we propose to use the following components: financial, technical and technological, industrial, intellectual and personnel, investment-technological, informational, ecological, power, legal, market, sales.

The human resources component plays an important role when assessing the economic security of agricultural enterprises. For example, according to analysts 80% loss of tangible assets puts our employees, companies and the average personnel security problems reduce profit by 6-9%. Therefore, agricultural enterprises, which have a high turnover because of the seasonality of production, as well as low salaries and difficult working conditions, it is important to take account of this component in the integrated assessment of economic security (Johansen S., 1991, Modeliuvannia ekonomichnoi bezpeky: derzhava, rehion, pidpryiemstvo, 2006).

In Table 2, the authors systematized indicators of assessing the level of economic security of the agricultural enterprise.

The sum method is used to determine the level of components of economic security. Thus, the level of k component is determined by the formula (1):

$$L = \frac{1}{n}\sum_{i=1}^{n} f(x_i), \quad (1)$$

where L – the level of k-th components of economic security of the enterprise;

$f(x_i)$ – correlation between the actual value of the components of the index and the base;

n – the number of indexes.

The correlation between the actual value of the components of the index and the base is determined by the formula (2):

$$f(x_i) = \left(\frac{x_{if}}{x_{ib}}\right), \quad (2)$$

where xif is the actual value of the index component;

x_{ib} – the base value of the index component;

k - 1, if $x_{ib} > x_{if}$, or $k = 1$, if $x_{ib} < x_{if}$.

Table 2

Components and indicators for assessing the level of economic security of the agricultural enterprise

Components of economic security of the enterprise	Indicators (Indices)
Financial component	- equity to total assets ratio; - coefficient of long-term debt; - current assets manoeuvrability ratio; - leverage ratio coefficient of financial dependence; - coefficient of current liquidity; - reserve coverage ratio; - absolute liquidity ratio; - quick liquidity ratio; - accounts receivable turnover ratio; - accounts payable turnover ratio; - asset turnover ratio; - return on assets.
Techno-technological component	- intensity of technology update; - scientific and production novelty of applied technology and technology; - the competitiveness of products.
Production component	- index of the ratio of arrival and departure of funds; - capital intensity; - return on capital; - material capacity; - material return; - profitability index of fixed assets; - profitability index of production; - working capital turnover ratio; - inventory turnover ratio.
Intellectual and human resources component	- index of staff fluctuations; - index of correlation of hired/retired personnel; - index of percentage of production personnel in the total number; - index of innovative activity; - index of conservation of implemented rationalization proposals; - the ratio of labour productivity and equipment facilities; - the ratio of labour productivity and wages; - index of social responsibility.
Investment and technological component	- index of investments; - index of progressiveness of long-term biological assets; - index of progressive use of long-term biological assets;
Information component	- coefficient of completeness of information; - coefficient of accuracy of information; - coefficient of contradictory information.
Ecological component	- index of expenses for measures of natural protection; - index of ecological payments.
Power component	- the share of negative influences in the past and current periods of the enterprise; - definition by expert estimation method.
Legal component	- the ratio of losses incurred by the enterprise as a result of violation of legal norms and the overall size of losses, which avoidance is due to the activities of legal services.
Market component	- definition of the environment (opportunities and threats); - definition of the internal environment (strengths and weaknesses).
Components for sale	- index of agricultural goods supply in the foreign market; - index of agricultural goods supply on the domestic market; - index of timely payment for agricultural products; - profitability of sales.

Source: summarized by the authors with (Kornienko, 2013; Bekhter, 2013)

It is necessary to determine the average component level (component) to form an integral indicator of the level of economic security.

Quantitative assessment of the level of economic enterprise requires qualitative characteristics of the results. The qualitative estimation approach of the economic safety level of the enterprise is offered on the desirability function basis. It characterizes the mathematical representation of the law of the transition of quantity to quality, as the quantitative index value is converted into an assessment of desirability, based on this condition of the evaluated object (in this case, economic security). The range of the desirability function lies on the segment [0, 1] (Allen Julia H., 2005).

Thus, the level of economic security of an enterprise is estimated by strategically important directions of enterprise activity, which influence the final result of the enterprise activity. Therefore, considering the importance and necessity of assessing the level of economic security of enterprises, they are included in the general concept of enterprise security.

4. Conceptual-strategic directions of economic safety of agricultural enterprises

The concept of agricultural enterprise security is a system of views of enterprise management on security issues at various stages and levels and in various spheres of its economic activity, and also defines the main ways of their solution, principles, directions, and stages of security measures implementation.

Formation of the concept of economic security of the enterprise includes four main stages (Figure 3).

Thus, taking into account the peculiarities of the formation of the concept of economic security of an enterprise, it is important to determine not only the level of economic security but also on the basis of the results to develop strategic directions for increasing the level of economic security of the enterprise. Formation of strategy of any enterprise is one of the main factors of effective functioning. In accordance with the life cycle of the enterprise, the chosen strategy can be adjusted in accordance with the results of the enterprise, in particular, its economic security. The main strategic groups of the company are general (corporate) strategies, product and commodity strategies, competitive (business) strategies, functional strategies, resource strategies. Significant interest for many scholars is precisely the general strategies that make it possible to determine the directions of global enterprise development. So in the scientific work, Gholik V. V. (Gholik, 2014) describes general enterprise strategies that can be used also at agricultural enterprises (Table 3).

Thus, the information presented in Table 3 shows that all corporate strategies of the company are divided into three main groups: growth strategies, stabilization strategies, and exit strategies (reduction). According to the results of the assessment of the level of economic security of the enterprise, one of the strategic groups can be applied. Taking into account the potential of the enterprise, it is necessary to implement specific types of strategies from a particular strategic group.

In accordance with the above, the authors suggest (Figure 4) the improvement of strategic directions for the formation of the economic security of the agricultural

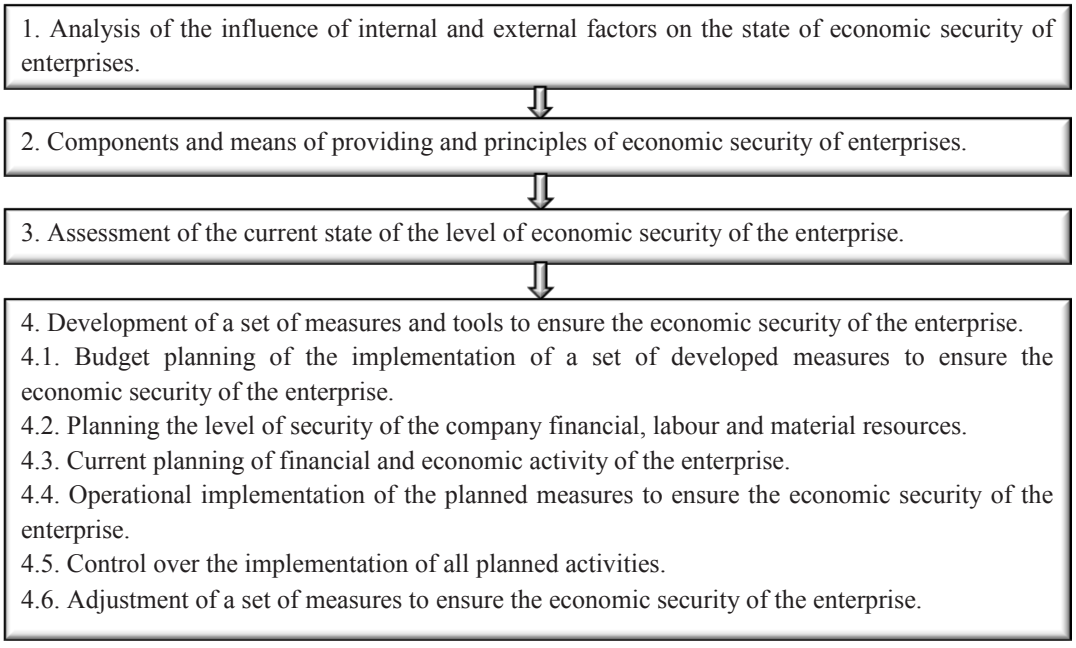

Figure 3. Formation stages of the enterprise economic security concept

Source: formed by authors with source (Kudelja, 2014)

Table 3

Corporate (general) enterprise strategies (Gholik, 2014)

Types of Strategies	The content of a particular type of strategy
Growth strategies *are options for developing existing business, creating a new business or entering new markets and increasing the rates of economic efficiency of production to improve the enterprise. Growth strategies are inherent in enterprises operating in dynamic industries with rapid technological change. An enterprise can grow as a result of increasing the scope of its current activities; introduction of a new direction of work or expansion of technological capabilities; expansion of the consumer group, which involves an increase in the quantitative indicators. The basis for growth is the internal development or acquisition of other enterprises (mergers, acquisitions, joint ventures) or a combination of these activities. Growth strategies for agricultural enterprises include increasing their size, filling the strategic portfolio with additional types of activities and products, as well as the transition to new management principles that ensure the qualitative development of the enterprise. It is the growth strategy that should become a priority for agricultural enterprises in order to ensure their competitiveness.*	
Concentrated growth	In agriculture, mainly due to the expansion of production capacities, that is, the consolidation of agricultural enterprises that creates the preconditions for the formation of competitive advantages.
Intensification strategy	It envisages the intensification of agrarian enterprises, whose purpose is to increase the quality of production and increase the efficiency of production on the basis of sustainable development, reducing the material money and labour costs per unit of production due to the qualitative improvement of all parties of production. It is implemented through the introduction of chemicals, melioration, breeding and seed production, biotechnology, specialization, mechanization and automation, resource and energy saving technologies, investment growth and capital investments, improvement of forms and methods of labour organization and management, personnel training.
Vertical integration	Distribution of the scope of the organization in one industry (in the direction of suppliers, consumers or on the properties of the product itself). This strategy involves the unification of producers of interconnected and related industries operating in the next stages of the product vertical, focusing on "key competencies of the organization" and providing the organization with important strategic benefits: economies of scale in the production process, minimization of transaction costs, opportunities for accelerated technological development, creating incoming barriers to competitors.
Horizontal integration	It is an association or absorption of producers of one level of grocery vertical. It is characterized by combining the efforts of agricultural enterprises to jointly produce certain products or perform one specific purpose (road construction, land reclamation, etc.) on a single raw material or technological basis. It is carried out by creating local units such as a mill, a bakery, an oilseed, a sausage shop, etc.
Mixed integration	It turns out in the union of enterprises of various industries, between which there is no technical and technological connection with the production and sale of products (production of building materials in agricultural enterprises, the creation of subsidiary enterprises for the production of agricultural products in the composition of industrial enterprises or associations).
Diversification	It involves penetration into new spheres of activity that are not characteristic of the organization before or are intended to modify, supplement or replace existing products.
- concentric (centre) diversification	It consists in replenishing the range of products, similar to those produced by the company, based on available capacities and on the basis of opportunities embedded in the mastered market.
- horizontal diversification	It turns out to be an addition to the range of related goods, not similar to those produced by the company, but interesting for existing markets. For agricultural centres and/or enterprises, horizontal diversification means the inclusion in their product portfolio, in addition to high-yielding productions, of a limited list of highly liquid crop products from other sectors (horticulture, horticulture, livestock, seed production, breeding), as well as units serving the main production.
- conglomerate diversification	Characterized by the replenishment of the range of goods that are related neither to existing products or markets nor to the technology used in the enterprise. Applies to large corporations, for example in the form of bioelectric installations. An example of the diversification of agricultural enterprises is also the objects of social infrastructure in rural areas.
Globalization of activity	The essence lies in a twofold idea: targeting the conquest of markets and the ability to use all of the organization's global resources to compete in any chosen market. It envisages the organization's entry into international alliances and alliances that benefit from the scale of production. Characteristic for large agricultural holdings and corporations operating in the international market. Acquiring relevance in the context of the food crisis and high potential of the agricultural sector of Ukraine and the possibility of entering the international market.
Stabilization strategies *are developed when the enterprise cannot grow for various reasons or its growth will be ineffective when the company dominates the market or operates in the formed industry with a stable technology, and they focus on existing activities and their support. Stabilization of the organization's activities may be carried out by modifying its own products, supporting its own potential or protecting the market share. It can be chosen only for a certain period and only by financially sustainable agricultural enterprises working on modern production technologies. The possibility of using agricultural stability strategies is due to the slow pace of technological change compared to other industries, as well as the inability of most agricultural producers to innovate.*	

(End of Table 3)

Types of Strategies	The content of a particular type of strategy
Differentiation of products	Provides modification or improvement of traditional products produced by the organization due to the use of new technical principles in the production of products, the addition of such changes to products that may cause new needs or new areas of consumption in order to continuously improve products. Characteristic of organizations that are characterized by innovation and entrepreneurial activity.
The pause strategy	It involves the deliberate suspension of production or the growth rate of sales at a high level of capacity utilization (80-85%) in order to reduce the proportion of costs, improve the quality of consumer services and product quality.
Cautious promotion strategy	It is aimed at preparing the organization in various areas of auxiliary activities while maintaining the stable business of the business in order to create the appropriate potential in the face of increased demand.
Strategy "nothing changes"	It involves carrying out ordinary activities, but without involving promising investments, expansion of production facilities, penetration into new markets, lack of new development or product improvement, maintenance of traditional consumers by various incentive measures.
Strategy of concentration	Provides that an organization to protect the market allocates a specific market segment, using low prices or unique offers, controlling costs by concentrating on key products.
Output strategies *(reductions) are selected by enterprises that need to regroup after the growth period or in order to increase efficiency; is the gradual or accelerated suspension of activities to release resources for more efficient use or transfer to more attractive areas.*	
Cost reduction strategy	Focused on finding opportunities and reducing certain types of costs, has the nature of temporary, short-term measures and provides for the reduction of relatively small flow of expenditure. For agricultural enterprises, this is usually the omission of technological operations, the use of low-quality seeds, materials, low wages, etc.
Strategy of reduction of divisions	It involves the closure or sale of the enterprise branches (divisions). Characteristic for diversified enterprises, which poorly combine different production, aimed at obtaining funds for the development of promising activities. Widely used by agricultural enterprises that remove from the product portfolio capital-labour-intensive long-cost, unprofitable sub-sectors of plant growing and livestock farming.
Harvesting strategy	The aim is to maximize the receipt of financial income by reducing investment, with the exception of current expenditures in the minimum amount required. Precedes the liquidation of the enterprise.
Restructuring strategy	Provides organizational, economic, legal, technical measures aimed at changing the structure of the enterprise, its management, a form of ownership, organizational and legal forms that can lead the company to financial recovery, increase the volume of production of competitive products, increase production efficiency.
Reorganization strategy	Provides for restructuring, reformatting, aimed at suspending the activities of a specific legal entity without the liquidation of affairs and property with the subsequent state registration of a new legal entity. Includes the following options: merge, join, split, select, transform.
Rehabilitation strategy	Includes a system of financial and economic, industrial, technical, organizational, legal, and social measures aimed at achieving or restoring the solvency, liquidity, profitability, and competitiveness of the debtor company in the long run, that is, a set of all possible measures that can lead the company to financial healing.
Elimination strategy	Applies to the inability of an enterprise to carry out its activities; is a form of exit from the market, which is used for the withdrawal of resources and the transfer to another type of activity through sale or liquidation.

enterprise, proposed by Yaremova M. I. (Yaremova, 2013), which depends on the level of economic security of the enterprise.

The analysis of strategic directions for the formation of economic security of agricultural enterprises has shown that the choice of a particular group of strategies depends on the level of economic security that was obtained after its evaluation. So with a high level of economic security, it is proposed to use a development strategy aimed at maintaining the existing level of economic security, as well as raising its level in the future. The stabilization strategy is used in enterprises with medium and low levels of economic security. This strategy allows you to optimize the financial and operational resources of the enterprise for their more effective use in the future. The critical level of economic security requires management of the strategy of survival, which is accompanied by the introduction of radical measures to increase the level of economic security of the enterprise (reformatting the production process, organizational structure of the enterprise, etc.).

5. Propositions

In the process of implementation of strategies for raising the level of economic security of agricultural enterprises, it is proposed to implement certain measures in accordance with the basic components of economic security, namely:

1. Financial component. In order to strengthen the financial component, it is proposed to attract financial resources by attracting external investments and lending.

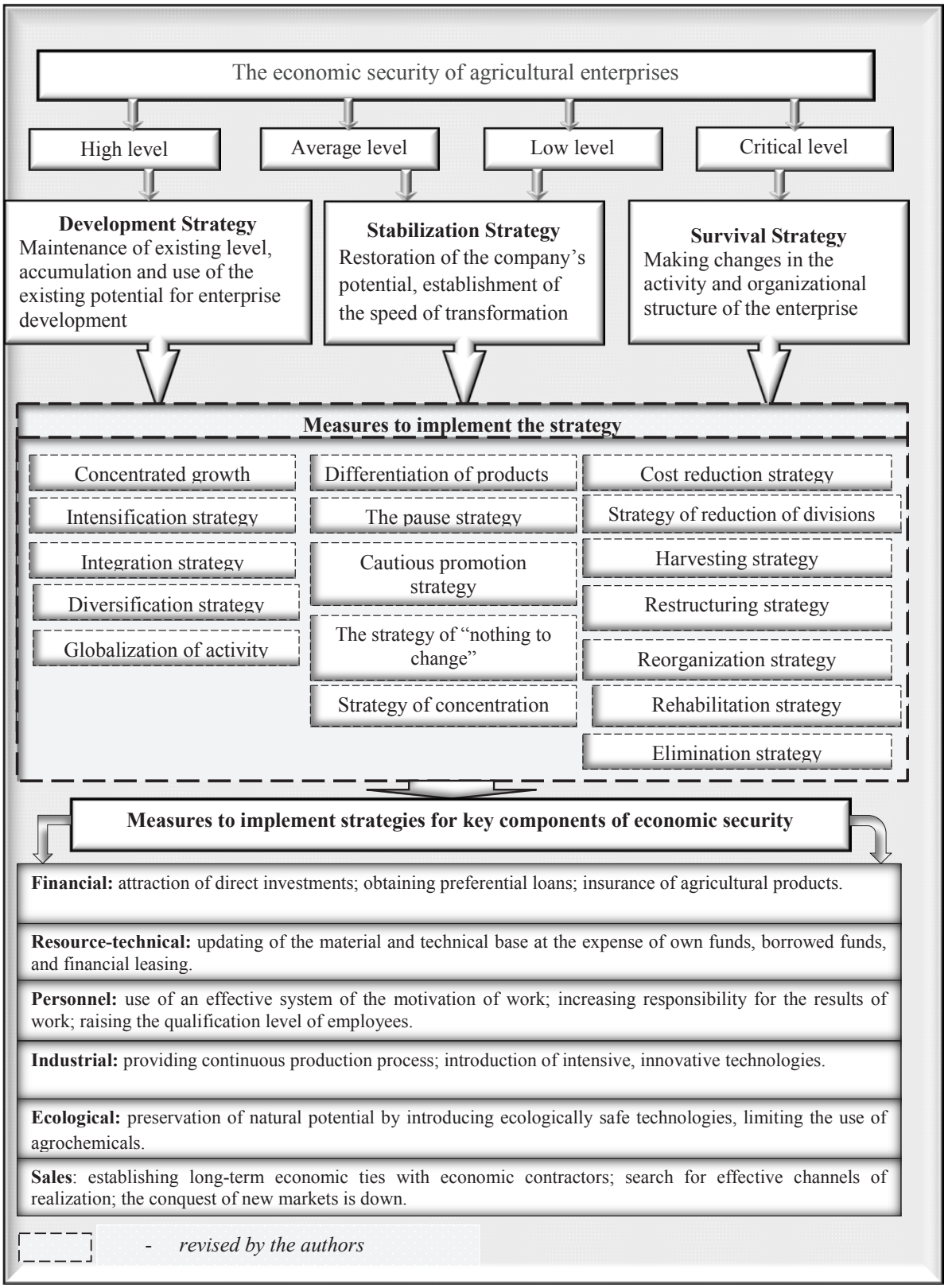

Figure 4. Strategic directions of the formation of economic safety of agricultural enterprises

Source: improved by the authors based on source (Yaremova, 2013)

2. Resource-technological component. Increasing the level of resource and technological security is possible due to financial leasing as one of the ways of long-term lending. This allows you to upgrade your company's core assets and avoid problems with borrowed funds.

3. Production component. The main directions in the increased level of industrial safety are: improving the production process and implementing resource-saving technologies.

4. Personnel component. Improvement of the system of personnel motivation, systematic development of professional skills, the favourable psychological climate in the team – the main factors in improving the personnel efficiency of the enterprise.

5. Ecological component. Ensuring an appropriate level of the environmental component of economic security involves the introduction of environmentally sound technologies, limited use of agrochemicals, and the use of organic fertilizers.

6. Sales component. To strengthen the marketing component of economic security, it is necessary to increase the production of finished products, and not raw materials. This requires the use of marketing measures that will allow them to enter new markets, increase the competitiveness of products and enterprises in general.

7. Constant monitoring of the external and internal environment of the enterprise will allow maintaining at the proper level such components of economic security as power, market, and legal.

6. Conclusions

Taking into account given above, we can conclude that ensuring an adequate level of economic security is one of the main functional tasks of the management of the enterprise. For the development and implementation of effective mechanisms for raising the level of economic security of enterprises, including agricultural ones, it is necessary to monitor systematically the state of economic security, using both quantitative and qualitative methods for assessing the level of economic security of an enterprise. The paper presents a methodology for assessing the level of economic security, which is based on certain components of economic security (financial component, technical and technological component, production component, intellectual and personnel component, investment and technology component, information component, environmental component, power component, legal component , components of sales, market component by the sum method. To calculate the overall level of economic security, it is proposed to use an integral indicator, which is determined by the average level of components. Obtaining the results of the assessment of the level of economic security allows us to choose the most effective conceptual strategy for raising the level of economic security of the enterprise. The authors outline strategic directions for the formation of economic security of agricultural enterprises, the use of which depends on a certain level of economic security.

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