## INNOVATIVE TECHNOLOGIES OF FORMATION OF INDICATORS OF COMPLIANCE-SECURITY OF THE STATE

#### 10.5281/zenodo.3870802

#### TETIANA KOBIELIEVA

Abstract. The article considers the issues of economic security of the country. For the first time, it was proposed to consider compliance violation as a component of economic security. The essence of the compliance function and its ability to ensure the economic security of the country is considered. A detailed analysis of compliance violations in the Ukrainian economy has been carried out, which allows us to identify shortcomings in the system for assessing the level of economic security. A methodological approach to determining the integral indicator of the country's compliance security is proposed. The formation of this indicator was carried out using the individual components of economic security, to which the author includes: financial, energy investment-innovation and social components. Based on them, a mathematical model for determining the integral indicator of the country's compliance security has been formed.

**Keywords**: economic security, compliance, indicators, state, corruption, dynamics, risks, enterprises

#### Introduction

Achieving economic security is one of the vital problems of the development of any state. All spheres of human life contain risks and dangers that must be taken into account when determining and implementing the goals put forward by society. The economic security of the country is of paramount importance for its development, as it provides guidelines for making the right socio-economic decisions.

The economic security of the state is a recognized object of scientific attention, both in Ukraine and abroad. A lot of work has been devoted to the study of economic security problems; a significant number of concepts and theories have been developed. Fundamental in the study of economic security are the works of such scientists as G.Kocziszky [1, 12], Y.Dehtyareva [2], V.Kobieliev [3], S.Ilyashenko [3, 4], M.Tkachov [5], V.Tovazhnyanskiy [7], A.Kravchuk [9], O.Sosnovska [10], V.Tkachuk [11], P.Pererva [13, 17, 21], M.Veres Somosi [12, 14], D.Szakaly [14], M. Gliznutsa [18], L.Marchuk [19], A.Starostina [20], T.Romanchyk [22] and others.

Noting the important contribution of the mentioned authors to the development of the problems posed, it should be noted that in the modern economic literature there are not enough works devoted to substantiating the role of the development of the information economy in the process of ensuring the economic security of the state, new threats to

economic security due to compliance factors remain insufficiently studied. In this regard, the study of the problems of economic security of the state in modern economic conditions and the search on this basis for effective ways to solve them seems theoretically and practically significant.

Therefore, the aim of the research results presented in the article is to develop theoretical problems of economic security in the context of the formation of theoretical, methodological and practical foundations of state compliance security

# I. Theoretical and methodological substantiation of the countrys compliance security

A comparative analysis of the definitions of economic security in the interpretation of different scientists has shown that this concept is formed from various positions:

- a) as a state of the economy, providing stable and sustainable socio-economic development;
  - b) how the protection of the economic interests of the country;
  - c) as a set of economic, political, legal conditions, etc.

However, in the framework of the existing approaches, not all aspects have received a complete and unambiguous solution. Moreover, there has recently been a tendency to expand the concept of economic security, in line with which the author's definition has been formulated: economic security is a characteristic of the state and dynamics of the development of the national economy, expressing its stability, stability, independence, security under the influence of internal and external threats.

The theory and practice of assessing the state of economic security of a country, industry, region and various enterprises has in its asset a significant number of models and methods. Difficulties in solving this problem lie in the degree of openness of the object of study as a certain degree of information system, to carry out active data exchange with the external environment, to generate and deliver information to the macro and micro environment. The method (approach, methodology, recommendations) of assessing the economic security of a country should be understood as the presence of certain techniques and methods for determining its level. Each of the existing methods is based on the use of certain tools, each of the methods has certain advantages and disadvantages, but none of them is better than the others. Due to the fact that different methods have completely different instrumental bases, existing methods for assessing the economic security of a country do not compete with each other. It makes sense to note only a different degree of development of

methods and the breadth of their practical use. Common among existing methods for assessing the level of economic security is the lack of compliance security components in the list.

Compliance (consent, compliance, comes from the verb "to comply"). Compliance reproduces the compliance of specific actions of the state as a whole, region, enterprise, individual team or employee of any rank with any internal or external requirements (laws, standards, norms, regulations, etc.). Historically, the concept of compliance has been formed in the field of combating corruption, combating money laundering and terrorist financing. Compliance with laws, rules and standards in the field of compliance usually refers to issues such as compliance with appropriate standards of market conduct, conflict of interest management, fair treatment of customers, etc. Therefore, in our opinion, at present the scope of the use of the compliance function is much wider, which implies the urgent need to take into account the compliance function in determining the compliance security of a country as a whole, a separate region, industry or enterprise [1, 4, 13, 16].

The study of the country's compliance security problems is also closely related to economic security in general and is an extremely important component of it. Therefore, the methodological provisions for assessing the level of compliance security of the state, in our opinion, in many ways correspond to the methodological basis for assessing the economic security of the country.

#### II. Investigation of the current state of compliance safety of Ukraine

In the system of ensuring national security of any country, economic security is the basis of its sustainable, crisis-free socio-economic development. The definition of the essence of the term "economic security" can be carried out using various approaches. Firstly, the level of economic security can be defined as the ability of the Ukrainian economy as a whole and its industries (regions) to ensure sustainable development and the corresponding economic interests of citizens, business entities, regions and the country as a whole. Secondly, the economic security of the country can be considered from the position of protecting the most important areas of activity of all residents of the country, society and the state in the economic sphere from existing compliance threats of various levels, the level of which in our country currently has a fairly significant level (Fig. 1).

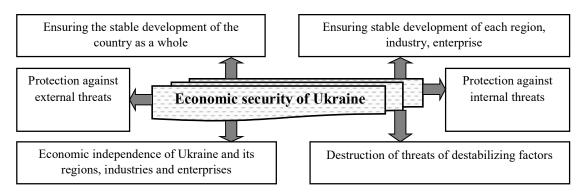


Figure 1 - Main components of economic security of Ukraine Source: copyright development

To determine the level of economic security of Ukraine as the main component of the national security of the state, the integral index of economic security is used. There are a fairly large number of methods and methodological approaches to determining the analytical size of this indicator. All of them have their own advantages and disadvantages to a greater or lesser extent. The dynamics of this indicator since 2005, calculated in accordance with the Methodological recommendations for determining the level of economic security of Ukraine, approved by Order of the Ministry of Economic Development and Trade of Ukraine No. 1277 of 10/29/2013 [6], presented by us in Fig. 2.

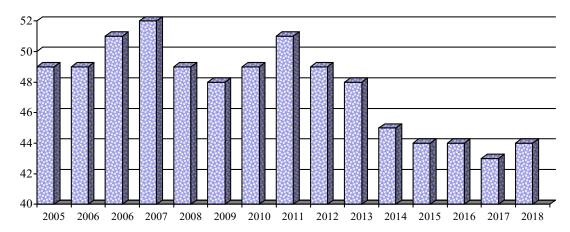


Figure 2 - Dynamics of the integral index of economic security of Ukraine

Source: created by the author [8]

The data presented in Fig. 2 indicate that until 2007 there was a steady increase in the level of economic security - up to 52% (maximum value). In 2008-2009 there were tendencies for a decrease in the economic security index of our country to 48% and a slight increase (by only 3%) during 2010-2011. In 2012, Compared with 2011, the level of this index decreased by 3%. This situation arose, in our opinion, due to a decrease in economic growth, a deficit of investment resources, insufficient credit activity, an unsatisfactory foreign economic situation, and also the accelerated development of shadow economy and corruption relations. The

scientifically substantiated optimal level of the economic security index is 100%, and the current values of the Ukrainian index are two times less than the optimal.

Unsatisfactory trends can also be observed when analyzing the dynamics of the level of economic security of our country in terms of security over the past ten years (Table 1).

Table 1 - Dynamics of the economic security indicator of Ukraine and its enterprises by sub-indices of components

Components of economic security	Year of observation								
	2011	2012	2013	2014	2015	2016	2017	2018	
Energy	32%	34%	39%	45%	47%	49%	51%	52%	
Financially	48%	46%	50%	36%	44%	43%	41%	48%	
Production	57%	53%	53%	52%	54%	53%	57%	56%	
Macroeconomic	47%	38%	40%	33%	37%	34%	42%	44%	
Investment and innovation	36%	37%	35%	30%	32%	35%	33%	35%	
Social	59%	62%	64%	57%	56%	63%	59%	61%	
Food	92%	93%	86%	94%	92%	89%	91%	93%	
Demographic	52%	45%	46%	46%	45%	44%	43%	43%	
Foreign Economic	35%	30%	32%	35%	34%	33%	36%	34%	
Economic security of Ukraine as a whole	50%	48%	49%	45%	44%	44%	43%	44%	

Source: created by the author [8]

Analysis of the data in Table 1 involves establishing the estimated distribution of economic security levels of the enterprise and its components. Research of scientific and methodological proposals on this subject, outlined in the scientific works of different authors and in the recommendations of the Ministry of Economy of our country [1, 3, 14, 19, 29], allows to use the following distribution of levels of economic security of industrial enterprise,%:

- > 0-19% critical economic safety interval;
- > 20-39% interval of dangerous level of economic security;
- ➤ 40-59% interval of unsatisfactory level of economic security;
- ➤ 60-79% an interval of satisfactory level of economic security;
- ➤ 80-100% the interval of optimal level of economic security.

The specified interval values in this case are not sufficiently economically justified, but their practical use allows carrying out to some extent justified analysis of both current and retrospective state of economic security at different levels of its assessment.

Based on these recommendations, it can be stated that practically none of the components of economic security falls within the critical state interval (the worst situation). But in general, the situation is dangerous enough, since the innovation-investment and foreign economic components correspond to the interval of a dangerous state of security. In our view, these components are closely interconnected, as both the level of production renewal and its

financing are highly dependent on the positive perception of the Ukrainian economy by the international community.

The fact that most of the components of economic security of Ukrainian enterprises (energy, financial, production, macroeconomic, demographic) are characterized by unsatisfactory level of economic security does not cause positive emotions. And this is typical for most sectors and sectors of the Ukrainian economy. The dynamics of the estimated values of the components of economic security shown in Table 1 show that their maximum deterioration occurs in 2014, when in our country there was a destabilization of the currency and monetary market, which significantly influenced the increase in financial instability.

At the same time, it should be noted that there is not a significant but clearly evident tendency of certain improvement of the valuation indicators on almost the vast majority of components of economic security of industrial enterprises in recent years, which causes some optimism about this.

#### III. Guidelines for assessing the level of compliance safety

The dynamics of the comprehensive index of economic security of Ukraine and its enterprises by subindices of components over the last 8 years (see Table 1) reproduces the integral importance of economic security. As we have already noted, the method of calculating this indicator involves taking into account 9 components (subindices), which are extremely important for the integral index of economic security of the country as a whole. At the same time, in our view, it is advisable to take into account only some of them that characterize the state of compliance of our country to the greatest extent, since, in our opinion, to the level of compliance of the country, each of the subindices of the integral the metric is affected differently.

To elaborate on this issue, we conducted an expert survey of leading experts in identifying the impact of each of the subindices of the integral index of economic security of Ukraine on the state of its economic security. Experts used the expert opinions of both leading experts in the field of economic security of the country, as well as individual teams - departments of relevant ministries, regional, city and district state administrations, research organizations, industrial enterprises, etc. Table 2 summarizes the results of such an expert assessment of the impact of each of the components of the country's economic security on compliance security. In the future, we preferred collective experts whose opinion we believe to be more credible and more objective. The experts listed in Table 2 are collective experts who reproduce the opinion not of an individual but of a particular organization, institution or

enterprise. This approach, in our opinion, can significantly increase the degree of accuracy and validity of our expertise.

Table 2 - Expert assessment of the coefficients of influence of components of economic security of the country on the integral indicator of its compliance security

Economic security	Experts									5,			
components of	<b>№</b> 1	№2	№3	№4	№5	№6	№7	№8	№9	<b>№</b> 10	<b>№</b> 11	<b>№</b> 12	rag
Ukraine													Average
													7
Energy	0,27	0,19	0,23	0,22	0,31	0,29	0,25	0,28	0,32	0,24	0,23	0,29	0,26
Financially	0,21	0,25	0,20	0,17	0,15	0,16	0,14	0,15	0,12	0,21	0,24	0,23	0,186
Production	0,02	0,01	0,04	0,02	0,02	0,01	0,04	0,02	0,03	0,05	0,03	0,01	0,025
Macroeconomic	0,05	0,06	0,03	0,05	0,08	0,04	0,07	0,04	0,02	0,06	0,07	0,04	0,051
Investment and	0,14	0,15	0,10	0,16	0,15	0,15	0,17	0,11	0,13	0,20	0,14	0,16	0,147
innovation													
Social (HR)	0,16	0,17	0,15	0,14	0,12	0,19	0,16	0,19	0,15	0,22	0,13	0,18	0,164
Food	0,03	0,05	0,01	0,03	0,01	0,02	0,04	0,03	0,01	0,02	0,03	0,04	0,027
Demographic	0,05	0,04	0,05	0,07	0,06	0,03	0,08	0,05	0,04	0,06	0,04	0,07	0,054
Foreign economic	0,07	0,09	0,04	0,05	0,07	0,11	0,08	0,06	0,05	0,06	0,08	0,09	0,071
Together	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0

Source: copyright development

According to the results of the examination, four components of the country's economic security have the greatest impact on the level of compliance security in the country: energy -  $E_s$ , financial -  $F_s$ , social -  $S_s$ , and innovation -  $II_s$ . In sum, they explain 78% of the country's integral compliance-safety indicator, which according to the laws of accumulated variance is sufficient to form an overall estimate (more than 75%). The impact of other components of the country's economic security can be neglected.

Indeed, the highest expectations of compliance threats should be expected in the energy sector of our country (for example, according to many studies, the highest level of corruption, fraud and other compliance violations is present). The financial sphere has accumulated experience of various types of frauds, financial equipment, abuses in almost all segments of the financial and credit sphere. Much smaller, but nevertheless, significant impact on the level of compliance threats in our country has investment and innovation (where the laundering of proceeds of crime) and the social (human) sphere of activity. Significant social inequality, a catastrophic gap in the level of even officially reported incomes, is a fertile ground for the manifestation of various abuses that can be classified as compliance threats.

It is obvious that the level of influence of each of the identified components -  $E_s$ ,  $F_s$ ,  $S_s$  and  $II_s$  is not the same. Simple calculations made using the data in Table 2, allow to obtain the weight coefficients of the impact of each of the identified components on the level of compliance security of the country, respectively:  $K_{e-s}$ ,  $K_{f-s}$ ,  $K_{s-s}$ ,  $K_{ii-s}$ .

The following dependence is fulfilled:

$$K_{e-s} + K_{f-s} + K_{s-s} + K_{s-s} = 1.$$
 (1)

Using the links above, we can form a  $S_{macro}$  country-wide compliance model based on some of the most important in terms of compliance with the country's economic security subindices:

$$S_{macro} = K_{e-s} \bullet E_s + K_{f-s} \bullet F_s + K_{s-s} \bullet S_s + K_{s-s} \bullet II_s.$$
 (2)

It should be noted that, in our opinion, the specific values of the weights of  $K_{e-s}$ ,  $K_{f-s}$ ,  $K_{ii-s}$  are not constant, their size largely depends on the macroeconomic situation in the country, on what are the priorities in the struggle of the authorities with different kind of compliance threats in separate directions of ensuring national compliance security.

## IV. Perspectives on the use of the compliance function at the enterprise level

The methodological essence of economic and compliance security of an industrial enterprise flows organically from the definitions and characteristics of the current state of economic and compliance security of the country as a whole and of industrial enterprises in particular (Fig. 3). The analysis of current studies of economic security in the works of different authors [1, 2, 4, 10, 12, 15] concludes that this research topic is quite important and relevant both globally, internationally (mega-level), national (macro-level), regional, industry (level) and enterprise level (macro). This implies the importance and necessity of forming a hierarchical decomposition structure of economic and compliance security of an industrial enterprise, starting with global economic security (mega-level) and ending with the compliance-security indicators that characterize the closest business environment of a given enterprise (Fig. 3).

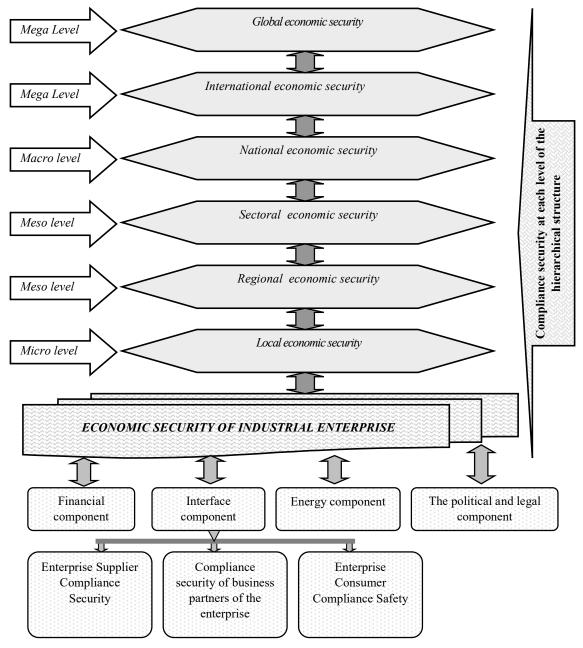


Figure 3 - Hierarchical decomposition structure of economic security of an industrial enterprise

Source: copyright development

The conducted researches allow to make one more important conclusion. Virtually none of the components of economic security, both at the country and industrial level, at this time does not take into account extremely dangerous for each of the economic entities phenomena such as corruption, fraud, money laundering, raiding, manipulation in the field of taxes, violations antimonopoly legislation, abuse of officials and top officials of industrial enterprises, criminal activities of criminal groups in the initiation and conduct of industrial

and entrepreneurial activity, etc. At this time, there is an urgent need to take into account, evaluate and eliminate all these negative manifestations.

As Sosonovskaya O.O. and Zhitar MO, the higher level of the hierarchy, is obliged to create favorable conditions for the protection of lower level economic security objects [10, p.125]. It is impossible to fully ensure the economic security of an industrial enterprise unless due attention is paid to the issue at the state or region (industry) level, if there is no legislative support for these processes, unless responsibility for violating the basic economic security provisions of the enterprise is established. Please note that at every level of the hierarchical decomposition structure of economic security, there is a need for honest behavior, that is, unconditional compliance with the requirements of existing international, national and other laws, regulations, regulations and instructions (compliance with the requirements of the compliance function).

In our view, a detailed examination of the theoretical and methodological foundations of economic security at each level of a hierarchical decomposition structure is important and relevant for the methodological definition of this economic category at the level of an industrial enterprise, which, in our view, is the basic, most important element in this structure.

Summarizing all of the above, we can conclude that the current stage of economic development of our country significantly increases the urgency and need to conduct research on the level of economic security of the enterprise, which is explained by the significant number of threats at different levels, which must be taken into account by senior management of an industrial enterprise when making important management decisions. Modern researchers of the category of economic security have come to the conclusion that there are appropriate characteristics (signs) of economic security, in the presence of which it is possible to evaluate the retrospective, current and perspective levels of economic security of the enterprise. For example, Sosnovskaya O. and Zhitar M. [10, p.129-130] offer for practical use the following characteristic features of economic security of the enterprise:

- economic equilibrium of an enterprise involves ensuring its balanced functioning in the conditions of cyclical development of the economy and different stages of the life cycles of the enterprise itself, which is manifested in maintaining the optimal capital structure, ensuring fulfillment of its obligations to other economic entities, ensuring financial interests and set goals over a period of time;
- competitiveness of the enterprise manifests itself in maintaining its competitive position in the conditions of increased competition and uncertainty of the economic environment, which ensures the achievement of quantitative and qualitative targets of the enterprise;

- economic freedom of the enterprise, which involves the synthesis of economic independence and responsibility with respect to economic security is manifested in the possibility of independent formation of qualitative resource potential of the enterprise and control of its rational use in order to achieve this goal in an unstable business environment;
- economic development of the enterprise corresponds to the possibilities of expanded reproduction of basic business processes, namely, innovative modernization of production, investment activity, accumulation of intellectual potential, introduction of new production and information technologies, etc.;
- harmonious interaction of the enterprise with the external environment involves timely adaptation of the enterprise to environmental factors, which are difficult to manage and have a significant impact on the formation of its internal equilibrium.

#### **Conclusions**

The introduction into scientific circulation of the economic category of "compliancesecurity" allows to consider quite differently the problem of ensuring the economic security of the country as a whole and of the industrial enterprise in particular. The economic security of any entity should be ensured not only by the efficiency of the production and commercial activity itself, but also by the ratio of the production system, top management and all personnel to the indicators of corruption, fraud, money laundering, violation of corporate ethics, antitrust, tax legislation, etc. . Along with state protective measures, an enterprise must protect itself on the basis of active counteraction to violations of laws and regulations at all levels. All this methodologically broadens both the term "economic security" and significantly enriches the theoretical and methodological tools used in carrying out various measures aimed at ensuring the economic security of the country, region and industrial enterprise. Economic security is the prerogative of any one government or corporate agency or service. It should be supported by the whole system of state bodies, all links and structures of management of the country, region and industrial enterprise. These challenges are related to the prospects for further compliance research. There is an urgent need to develop theoretical and methodological provisions for determining and assessing compliance risks, determining the level of corruption and fraud in the country and at the enterprise, the level of violations of antitrust and tax laws, developing a system of permanent monitoring of both the violations and the system kind of action.

#### References

- 1. Pererva P.G., Kocziszky Gy., Somosi Veres M., Kobielieva T.A. Compliance program: [tutorial] / P.G.Pererva [et al.]; ed.: P.G.Pererva, G.Kocziszky, M. Veres Somosi. Kharkov; Miskolc: NTU "KhPI", 2019. 689 p.
- 2. Degtyareva I.B. Ekonomichna diahnostyka [*Economic diagnostics*]. Sumy: Sumy State University, 2012. 112 p.
- 3. Pererva P.G., Kosenko A.V., Tkachev M.M., Kobieliev V.M. Innovative compliance of technology to combat corruption // Innovative management: theoretical, methodical, and applied grounds / S.M. Illiashenko, W. Strielkowski (eds.). 1st edition. Prague: Prague Institute for Qualification Enhancement, 2018 P.285-295.
- 4. Ilyashenko S.N. Sostavlyayushchye ekonomycheskoy bezopasnosty predpryyatyya y podkhody k ykh otsenke [Components of economic security of enterprises and approaches to their evaluation]. // Aktualni problemy ekonomiky. 2003. № 3. S. 12–19.
- 5. Pererva P.G., Kosenko O., Tkachov M. Compliance program of an industrial enterprise: the essence and content / // Balance and Challenges.- X. International scientific conference.-2017, October 17-18.- Miskolc-Lillafured: University of Miskolc, 2017.- P.87-93.
- 6. Metodyka rozrakhunku rivnya ekonomichnoyi bezpeky Ukrayiny [*Methodology for calculating the level of economic security of Ukraine*]: Order No. 60, March 2, 2007 [Electronic resource]. Access mode: http://www.me.gov.ua
- 7. Pererva P., Tovazhnyanskiy V., Kobeleva T., Gladenko I. Anti-crisis monitoring of financial and economic indexes of enterprise work // Business Studies.- Volume 7.- Number 2.- Miskolz Press.- 2010.- S. 171-183.
- 8. Ofitsiynyy sayt Ministerstva ekonomichnoho rozvytku i torhivli Ukrayiny [Official Website of the Ministry of Economic Development and Trade of Ukraine] [Electronic resource]. Access mode: http://www.me.gov.ua/
- 9. Pererva P.G., Kravchuk A.V. Efektyvnist yak ekonomichna katehoriya [*Efficiency as an economic category*] // Bulletin of NTU "KhPI" (economic sciences): collection. of sciences. Ave. Kharkiv: NTU "KPI", 2018. № 15 (1291). pp. 137-143.
- 10. Sosnovskaya O.O., Zhitar M.O. Ekonomichna bezpeka pidpryyemstva: sutnist ta oznaky zabezpechennya [*Economic security of the enterprise: essence and features of providing*] // Accounting and finances.- 2018.- № 3.- P. 124-132.
- 11. Tkachuk V.I., Yaremova M.I. [*The mechanism of management of economic security of agricultural enterprises*] // Bulletin of ZhNAU. 2011. № 2 (29), vol. 2. P. 252-261.
- 12. Kobielieva T., Kocziszky G., Veres Somosi M. Compliance-Technologies in Marketing // MIND JOURNAL // Wyższa Szkoła Ekonomiczno-Humanistyczna.- №5.-2018.- [Published online] .- Access mode: https://mindjournal.wseh.pl/

- 13. Pererva P.G. Komplaens-prohramma promyshlennoho predpryyatyya: sushchnost y zadachy [*Compliance program of industrial enterprise: essence and tasks*] // Bulletin of NTU "KPI" (economic sciences). Kharkiv: NTU "KPI", 2017. № 24 (1246). P.53-158.
- 14. Pererva P.G., Kocziszky G., Szakaly D., Somosi Veres M. Technology transfer. Kharkiv-Miskolc: NTU «KhPI», 2012. 668 p.
- 15. Kobeleva T.O. Orhanizatsiyna struktura komplayens na promyslovomu pidpryyemstvi [Organizational structure of compliance at an industrial enterprise] // Bulletin of NTU "KPI" (economic sciences): collection. of sciences. Ave. Kharkiv: NTU "KPI", 2018. № 47 (1323). pp. 121-127.
- 16. Kobeleva T.O. Rozrobka rekomendatsiy po formuvannyu intehral'noho pokaznyka komplayens-bezpeky promyslovoho pidpryyemstva [Development of recommendations for the formation of the integral indicator of the compliance safety of an industrial enterprise] // Bulletin of NTU "KhPI" (economic sciences). Kharkiv: NTU "KPI", 2018. № 48 (1324). P. 46-52.
- 17. Pererva P.G. Informatsiyna diyalnist pidpryyemstva: upravlinska, tsinova ta marketynhova skladovi [*Information activity of the enterprise: management, price and marketing components*] // Bulletin of NTU "KhPI" (economic sciences) X .: NTU "KhPI". 2018. № 37 (1313) .- P. 27-32.
- 18. Pererva P.G., Glaznuts M.Yu. Benchmarkinh yak metod otsinyuvannya intelektualnoho potentsialu rehioniv [*Benchmarking as a method for assessing the intellectual potential of regions*] // Marketing and innovation management. 2015. № 4. P. 11-19.
- 19. Pererva P.G., Marchuk L.S. Intelektualnyy potentsial yak ekonomichna katehoriya [*Intellectual potential as an economic category*] // Bulletin of NTU "KPI" (economic sciences) Kharkiv: NTU "KPI", 2018. № 15 (1291). C. 53-63.
- 20. Starostina A.O. Marketynh: teoriya, svitovyy dosvid, ukrayinska praktyka [*Marketing: theory, world experience, Ukrainian practice*]. K .: Knowledge, 2009. 1070 p.
- 21. Pererva P.G., Kobiielieva T.O. The formation of anti-crisis program of the industrial enterprise based on innovative monitoring [*The formation of the anti-crisis program of the industrial enterprise based on innovative monitoring*] // Bulletin of NTU "KPI" (Economic Sciences), 2016. № 48 (1220). P.41-44.
- 22. Pererva P.G., Kobeleva T.O., Romanchik T.V. Komplayens yak faktor innovatsiynoho rozvytku pidpryyemstva [Compliance as a factor of innovative development of the enterprise] // Information and knowledge in the system of management of innovative development: monograph / for the head. ed. doc. econom. Sciences, Associate Professor YS.Sipulina.- Sums: Tritory, 2018. P.205-220.

## **Note about Authors:**

**Tetiana Koebilieva**, PhD, Associate Professor, Associate Professor of the Department of Management of Innovative Entrepreneurship and International Economic Relations of the National Technical University "Kharkiv Polytechnic Institute"